[illegible] LIBRARY
[illegible] MARYLAND
BALTIMORE

MISSISSIPPI DOCTOR

Volume 23 - 24

1945 - 1947

The Mississippi Doctor

VOL. 23 BOONEVILLE, MISSISSIPPI, JUNE, 1945 — May 1946 NO. 1

Tolerance

The most lovable and livable quality that any human being can possess is tolerance. Tolerance is the vision that enables us to see things from another's point of view. It is the generosity of spirit that concedes to others the right to their own opinion and individuality. It is the breadth of mind that enables us to want those whom we love and respect to be happy in their own way and not in our way.

AO TILLYER *Ful-Vue* BIFOCALS

...ELIMINATE THE IMAGES
WITH "THE FRINGE ON TOP"

A "surrey with a fringe on top" is a pleasant, nostalgic sight, but *color* fringes have no place when reading through bifocal segments—either top or bottom. Ful-Vue Bifocals are so designed that vision through them is not affected by annoying color fringes. This color reduction feature is accomplished in most Ful-Vue Bifocal segments through the use of Barium glass—in high minus corrections through the use of dense flint glass in the segments.

To give your patients full satisfaction, prescribe Tillyer Ful-Vue Bifocals for maximum comfort. Ask your American Optical representative for demonstration.

American Optical
COMPANY

Tillyer is a registered AO Trade-Mark

UNIVERSITY OF MARYLAND
LIBRARY
Founded 1813
SCHOOL OF MEDICINE

S. N. BRINSON, M.D.
Medical Director

WALTER R. WALLACE
Business Manager

THE WALLACE SANITARIUM

MEMPHIS **TENNESSEE**

For over thirty years in successful operation, just eight miles from the heart of the city, in a quiet suburb, occupying sixteen acres of beautiful grounds, this Sanitarium is especially equipped for the treatment of drug addiction, alcoholism, nervous, and mental disorders, the care of patients requiring metrazol and insulin therapy and is ideal for convalescents.

44637

44637

Fulminating Abdominal Catastrophes*

GEORGE H. MARTIN, M.D. and AUGUSTUS STREET, M.D., F.A.C.S.
Vicksburg, Miss.

THE TITLE OF this paper was selected in hopes of conveying to the mind of the reader a picture of the sudden, severe, and often overwhelming conditions that may occur in the abdomen.

In no other field of surgery is there such a demand for quick thinking and sound judgment as is encountered in the so-called acute abdomen. Here is truly a surgical emergency requiring that we strive for the utmost in diagnostic acumen and the ultra in surgical judgment. Although a final diagnosis cannot be made until the abdomen is opened one must always attempt to obtain an accurate preoperative impression for upon such is based the rational approach to the surgical problem.[9] Once a correct diagnosis is made the well trained surgeon has little difficulty in adequately treating a patient with acute abdominal manifestations.

Conditions which may produce a fulminating acute abdomen may be classified as follows:[7] 1) inflammation; 2) obstruction; 3) perforation; 4) hemorrhage; and 5) trauma.

INFLAMMATION

Appendicitis—The most frequent cause for an acute abdomen is of course appendicitis. The usual syndrome of pain beginning around the umbilicus, radiating to the right lower quadrant to become localized beneath McBurney's point, together with nausea, vomiting, rigidity in the right side, moderate leukocytosis, and low grade fever is familiar to us all and needs no further discussion at this time.[2]

We are interested however in the ruptured appendix and the ruptured appendiceal abscess, for here a relatively simple surgical problem of the acute appendix has been converted into a serious surgical emergency with a high mortality rate. The usual picture of a ruptured appendix following an acute inflammatory appendicitis which has been neglected or abused by the giving of cathartics need give no great concern in the differential diagnosis, but there is one type of appendicitis which is especially treacherous. This is obstructive appendicitis. In this condition the typical syndrome is not present. The patient may complain only of colicky pain which may not be severe. There may or may not be nausea or vomiting. The leukocyte count may be perfectly normal. There is little or no peritoneal irritation and usually no rigidity. In spite of a lack of warning signs perforation usually occurs early due to the obstructive nature of the condition and rupture occurs into a virgin peritoneal cavity which has not become walled off by inflammatory exudate about the appendix. The picture is one of a sudden spreading peritonitis with few localizing signs. One is then faced with the problem of dealing with a generalized peritonitis rather than a local disease of the appendix which would have been easily relieved earlier by appendectomy.

The sudden intraperitoneal rupture of an appendiceal abscess can of course give a very similar picture to the above. Here there are the usual findings of an appendiceal abscess with tenderness and rigidity together with the presence of a mass in the right lower quadrant with evidence of localized peritonitis. If there is rupture of this abscess with extension into the general peritoneal cavity, generalized peritonitis results. The differential diagnosis should not cause a great deal of difficulty, but the diagnosis can be aided by doing a rectal examination. The presence of a mass in the right lower quadrant on rectal examination together with fullness, induration and possible softening in the cul-de-sac points toward the diagnosis of ruptured appendiceal abscess.

Salpingitis — Occasionally acute salpingitis complicated by rupture of a tubo-ovarion abscess may cause confusion in differentiating it from an appendiceal abscess. However, the pain is usually localized in the pelvis, the leukocyte count is higher than in appendicitis, and the febrile reaction is usually much higher in the earlier stages than in appendiceal complications. A careful pelvic examination will usually reveal the difference in the two conditions. A tender palpable mass attached to the right side of the uterus in the region of the broad ligament is usually indicative of a tubo-ovarian abscess.

---

*From the Surgical Section of The Street Clinic, Vicksburg, Mississippi. Read before Central Medical Society Annual Meeting, Jackson, Mississippi, December, 1944.

16457

Cholecystitis — Infectious cholecystitis without obstruction is usually of insidious onset and does not constitute an acute abdominal emergency as it is relatively free from the danger of rupture. On the other hand the acute obstructive type of cholecystitis is an emergency and 95 per cent of all gangrene and perforations occur in the acutely infected and obstructed gallbladder.[1] A patient with acute obstructive cholecystitis usually presents a history of a rather sudden onset of colicky pain in the upper right quadrant which later becomes more severe and constant and may be referred to the interscapular region of the back. Nausea is rather severe with marked vomiting. There may be a history of previous gallbladder colic with or without jaundice. When perforation occurs there is a sudden flooding of the peritoneal cavity with infected bile, which at first produces a chemical peritonitis followed in eight to twelve hours by a bacterial peritonitis. Examination usually reveals the patient in shock or semi-shock. The skin is cold and clammy, the pulse is rapid and the blood pressure low. Jaundice may or may not be present. There is board-like rigidity of the abdomen and a mass can often be palpated in the upper right quadrant unless it is obscured by rigidity or obesity. Distention may be present if ileus has occurred from the peritonitis. Operation of course is imperative but should be delayed until some restitution has been accomplished by the giving of glucose together with plasma or blood.

Acute Pancreatitis—Acute pancreatitis is an infrequent cause of acute abdominal disease, being responsible for less than 1 per cent of cases.[1] This may mimic the findings of perforated gastric or duodenal ulcers, gangrenous and perforated cholecystitis and those of intestinal obstruction. Pathologically it may present an acute pancreatic edema, acute pancreatic necrosis, acute hemorrhagic pancreatitis and pancreatic abscesses, which are all phases of the same process. In general these patients might suggest a ruptured peptic ulcer, but they lack the board-like rigidity. They might suggest an acute gallbladder except for the fact that they are too ill, or an acute thrombosis but for the normal pulse rate and blood pressure. Certain types of strangulated obstructions might make differential diagnoses difficult as acute pancreatitis must also be accompanied by a silent abdomen.[13] The usual history is a sudden acute onset of severe epigastric pain accompanied by nausea and persistent vomiting. The vomiting is usually so severe that it is not alleviated by morphine or by gastric suction as is the usual case of ruptured peptic ulcer. In the early stages the patient may have no fever, a normal blood pressure, and a slow pulse. Tenderness in the epigastrium may be very slight in the early stages. Recently interest has been shown in regard to x-ray diagnoses of acute pancreatitis. The x-ray findings suggestive of acute pancreatitis consist of: (1) tender tumefaction of the pancreas found during fluoroscopy, (2) changes in the stomach and duodenum, and (3) evidence of localized or generalized ileus.[13] The spot film may show some widening of the region between the gas bubble in the stomach and the gas in the tranverse colon. Pathognomonic consideration is a loss or flattening of the greater curvature of the stomach found on fluoroscopy after digestion of barium. This is caused by displacement of the stomach due to edema or hemorrhagic cysts of the pancreas. Until recent years acute pancreatitis was considered an indication for immediate operation, the indications being to relieve tension, to stop hemorrhage and leakage and to afford drainage. At the present time most writers contend that the operation is best deferred until the acute pancreatic symptoms subside, however due to the difficulty of correctly diagnosing the condition there probably would be many ruptured peptic ulcers diagnosed as acute pancreatitis by the average surgeon and hence delay would in the majority of cases mean the death of the patient.[19]

Diverticulitis—Diverticulitis usually occurs in one of two locations, either in the small intestines as an inflammation of a Meckel's diverticulum, or in the descending or sigmoid colon from inflammation of diverticulae in this region. Meckel's diverticulitis may manifest itself in two ways, either as massive hemorrhage most often seen in children, or as a diverticulitis which mimics a midline or left sided appendicitis.[11] A Meckel's diverticulum is usually lined with gastric mucosa in which a peptic ulcer may occur resulting in either perforation or hemorrhage. Massive rectal hemorrhage occurring in infants and children in which other causes of bleeding have been ruled out should be subjected to a laparotomy in view of finding a Meckel's diverticulum from which hemorrhage is occurring.

Acute Meckel's diverticulitis usually cannot be distinguished from acute appendicitis except by its location and most often must be proved by laparotomy.

Diverticulae of the colon may occur in any part, however, 60 to 85 per cent are found in the descending colon and sigmoid.[18] It is in this area that almost all of the complications requiring operative intervention rise. The most serious but least frequent complication of diverticulitis is a sudden perforation into the peritoneal cavity causing generalized peritonitis. This is rare however, perforation and abscess formation being much more common, because peridivertitulitis usually walls off the impending perforation by fixation of the surrounding viscera to the inflammatory area.

OBSTRUCTION

Intestinal Obstruction—Intestinal obstruction can be primarily divided into two classes: large bowel and small bowel. Large bowel obstruction is usually insidious in onset and characterized by increasing constipation and gradually increasing distention. Nausea, vomiting and even pain may be late manifestations. The most common etiological factors are carcinoma and inflammation. The diagnosis is usually relatively simple. The x-ray findings together with a careful digital and sigmoidoscopic examination will usually cinch the diagnosis. There is one condition however which produces an acute abdominal emergency. This is volvulus of the sigmoid. In this condition there is an abnormally long sigmoidal loop with a long mesentery. A sudden twisting of the bowel upon itself produces a complete obstruction of the closed loop variety with rapid embarrassment of the blood supply. In addition to the usual findings of large gut obstruction, the x-ray is quite characteristic showing a localized enormously distended sigmoid. Early operation is imperative to prevent gangrene and perforation.

Small bowel obstruction may be divided into two etiological factors, (1) intrinsic and (2) extrinsic. The intrinsic causes of intestinal obstruction are usually due to foreign bodies such as gall stones, hair balls, persimmon bezoars or boluses of worms in children.[10] Obstruction may be also caused by tumors arising from the bowel wall but this is relatively rare in small intestines.

The extrinsic causes of small bowel obstruction are much more important and are usually due either to hernia or adhesions. Incarcerated or strangulated hernias are the most frequent causes of intestinal obstruction and may be of two types, either external or internal. The diagnosis of intestinal obstruction from external hernia is usually obvious either from the history or from the physical findings of a hard indurated mass in either the inguinal, femoral or ventral regions. However, there is one type of particular importance and this is a Richter's hernia usually of the femoral variety.[5] Here only part of the wall of the bowel is caught in the hernia. The obstruction is incomplete and the symptoms are usually of mild character and unless a careful examination of the hernial orifice is done the diagnosis may not become apparent until the perforation and peritonitis has occurred.

Internal hernias present an entirely different problem and are probably one of the most difficult diagnoses to make in the acute abdomen. Fortunately this condition is rare but should be kept in mind when making a differential diagnosis. The most common causes for internal hernia are herniation in the region of the paracecal fossa, the paraduodenal fossa, rent in the mesentery[4] or omentum and diaphragmatic hernia. The patient with an internal hernia may complain of vague pains and discomfort for a varying length of time until there is a sudden twisting or incarceration of the hernial mass. When this occurs the effects are disastrous because of the large amount of bowel involved in the hernia. The sudden disturbance to the blood supply of this long length of bowel produces a truly fulminating abdominal catastrophe. These patients usually complain of severe abdominal pain which is followed in a short time by marked shock. Thrombosis of the mesenteric vessels occurs relatively early unless operative reduction is accomplished. The diagnosis is particularly difficult but is characterized by severe colicky pain, marked shock with rapid distention followed by rigidity and signs of peritonitis as thrombosis with gangrene progresses. There may be vomiting of blood or bloody mucus in the stool. The blood count is usually normal until the later stages of peritonitis occur. An erect x-ray plate of the abdomen shows distention and fluid levels. Unless operation is done early the prognosis is usually hopeless.

Adhesions have long been known as a common cause of intestinal obstruction and most often follow operations in which infection was a factor, but may also be due to faulty surgical technic. The failure to reperitonealize raw surfaces or properly close the peritoneum of the wound may result in adhesions. The picture of intestinal obstruction occurring in a patient with an abdominal scar and a history of peritonitis or a wound infection will most often be found to be due to adhesions.

Intussusception—Intussusception is characterized by certain findings which make the diagnosis relatively easy, mainly age incidents, bloody stools, and a palpable mass.[3] It occurs most often in children under two years of age, usually between the ages of three and nine months. The onset is sudden and consists of severe cramping pains which cause the child to double up and scream with agony. This is followed by a remission in which the patient may even go to sleep. One or two hours after onset the child begins passing bloody mucus in the stools and the tumor can be felt along the course of the colon. Distention and persistent vomiting occur relatively late. In questionable cases a barium enema under fluoroscopic observation will prove the diagnosis. Rarely intussusception occurs in adults with tumors of the bowel wall.

Volvulus—Volvulus of the intestinal tract fortunately is a rare occurrence. It may occur at any age period from the newborn to the aged. Volvulus occurring in the early decades of life is usually based on congenital defects such as failure of rotation of the intestines or incomplete fixation of the mesentery. Volvulus of the small intestine or cecum occurs most often in children while volvulus of the sigmoid occurs in the older age groups. Obstruction of the small intestine by volvulus gives rise usually to copious and frequent vomiting. The presence of a mass in the mid abdomen accompanied by signs of intestinal obstruction attended by tenderness should suggest the possibility of volvulus.[20] The scout x-ray film is usually of great value in revealing a markedly distended loop of bowel compatible with obstruction of the closed loop variety.

In general the diagnosis of intestinal obstruction is based upon one or more of the following findings. Colicky abdominal pain accompanied by hyperhyperistaltic rushes, nausea, vomiting, obstipation, and distention, together with an absence of fever and leukocytosis in the early stages, and accompanied by x-ray evidence of fluid levels and gaseous distention. When confronted with evidence of intestinal obstruction it is well to remember, that in children intussusception is the most common cause. In the middle ages hernia and adhesion are most frequent and in older patients carcinoma is usually the etiological factor.

Mesenteric Thrombosis—Mesenteric thrombosis and embolism are rarely recognized preoperatively. The important thing to recognize is that a serious surgical lesion is present that demands opening the abdomen. It occurs most often in persons between the ages of 30 and 75 in whom there is a history of myocarditis, endocarditis, or arteriosclerosis. The superior mesenteric artery is most frequently involved, rarely the inferior mesenteric. The usual manifestations of disease are the sudden onset of severe acute abdominal pain, vomiting, and diarrhea. The stools and vomitus occasionally contain blood. Shock is generally manifested and the pulse is frequently rapid and irregular.[16] The temperature is normal or subnormal but occasionally there is fever even in the early stages. Distention of the abdomen is progressive though not extreme. An abdominal tumor may be observed in a small percentage of cases. The pain is distinguished from that of intestinal obstruction in that it is not colicky in type but is continuous and severe.

Twisted Ovarian Cyst—An ovarian cyst whose pedicle becomes twisted is characterized by an abrupt onset of violent abdominal pain accompanied by nausea and vomiting together with evidence of shock. The shock is caused by the excruciating pain. The abdominal wall becomes rigid and tender and often a tumor can be seen in the pelvic region which increases in size. The diagnosis is aided by feeling an exquisitely tender cystic mass on bimanual palpation.

PERFORATION

Perforated Gastric and Duodenal Ulcers—The patient with a ruptured peptic ulcer will often give a history compatible with a gastric or duodenal ulcer, however occasionally rupture takes place in patients with a so-called silent ulcer without any prodromal symptoms. The onset is abrupt and is sometimes accompanied by a history of trauma to the epigastrium, sudden straining or lifting of a heavy object. The pain is excruciating and is at first confined to the pyloric region of the stomach but later spreads toward the right lower quadrant as the acid gastric chyme flows down the right colic gutter. Later the pain becomes generalized all over the abdomen and is accompanied by board-like rigidity, nausea, and persistent vomiting. Shock may be present in varying degrees. The patient is usually found lying perfectly still on the left side with the thighs flexed on the abdomen. He objects to being moved as he is in excruciating pain. This is in contradistinction to the patient with a urinary colic who rolls and writhes with his pain. In the early stages the temperature is normal or subnormal and there is no leukocytosis present. The diagnosis is confined by finding air under the diaphragm in the erect plate of the abdomen. If the patient is too ill to sit up an AP view taken in the left lateral decubitus position will reveal air between the right lobe of the liver and the right costal margin.

Typhoid Ulcer—Perforation of typhoid ulcer is by far the most important, the most dreaded, the most fatal complication fever. In the majority of instances it occurs during the third week in the severe cases, particularly with those associated with diarrhea, distention, and hemorrhage. The most common site of perforation is the lower portion of the ilium. As a rule it is single, but may be multiple. The most important single symptom is a sudden sharp pain referred to the right lower quadrant. Shortly after the onset of pain a decided change is observed in the condition of the patient. There is nausea, vomiting, and increase in the pulse rate and the temperature falls to be followed by a rise. There is local rigidity of the abdominal muscles, particularly near the site of perforation, and after a short period the entire abdomen becomes markedly rigid. If gas escapes into the abdominal cavity the liver dullness becomes obliterated and pneumoperitoneum may be demonstrated by x-ray. In a patient presenting symptoms of such a lesion it is much better to advise an exploratory laparotomy rather than to delay too long for the development of a perfectly typical picture. Even under the most favorable conditions the mortality is exceptionally high.

HEMORRHAGE

Bleeding Ulcers—Hemorrhage from a peptic ulcer requiring surgical intervention occurs usually in patients past forty years of age in whom arteriosclerosis is a factor. Bleeding in younger patients usually responds to conservative treatment. When massive hemorrhage occurs these patients vomit copious amounts of blood and pass frequent massive tarry stools. Shock is often severe but is dependent on the amount of blood loss. Anemia is apparent as paleness of the mucous membranes, colorless nail beds, and a marked drop in the red cell count. The diagnosis is not often difficult as the patient usually gives a history of peptic ulcer, often with previous hemorrhages. In the differential diagnosis rupture of an esophageal varix would have to be considered but these patients usually have other findings compatible with cirrhosis of the liver.

Ruptured Extrauterine Pregnancy—Rupture of an extrauterine pregnancy is usually preceded with the history of missing one or two periods followed by a slight spotting of vaginal blood. With the onset of rupture the patient often complains of a desire to void or defecate and may often go to the bathroom and faint. As the hemorrhage progresses the patient presents all the signs and symptoms of acute blood loss accompanied by shock, paleness, rapid thready pulse, cold clammy skin and evidence of severe anemia. There is pain in the lower abdomen with tenderness over the pelvic region. There may be pain referred to the shoulder region. Vaginal examinations will usually reveal moderate softening of the cervix with other early signs of pregnancy such as increased blueness of the vaginal wall and softening of the lower uterine segment. The uterus may be slightly enlarged. There is often a bloody flow from the cervix, sometimes with passage of clots or decidual membrane. Palpation reveals marked tenderness on manipulation of the uterus, the mass may be palpated in one of the adnexa which is exquisitely tender, and the cul-de-sac is often tender and bulging. In cases where the diagnosis is not clear further information may be obtained during a vaginal examination under anesthesia. At this time an adnexal mass which has previously been missed because of abdominal pain and rigidity can often be felt when relaxation occurs under anesthesia. The diagnosis can often be aided by doing a cul-de-sac puncture with an aspirating needle. If bright red blood is obtained the diagnosis is confirmed.

TRAUMA

Traumatic Injuries to the Abdomen—Traumatic injuries to the abdomen must primarily be divided into penetrating and non-penetrating. If a penetrating open wound of the abdomen is present then one must decide whether the injury is extra-peritoneal or intra-peritoneal. If extra-peritoneal injury is present the prognosis is good and the treatment consists only of local treatment of the wound.[21-16]

However, if penetration of the peritoneal cavity has occurred then exploratory laparotomy is almost always indicated.[18] In attempting to determine whether a wound has penetrated the peritoneal cavity or not, several procedures may be helpful, the simplest probably is direct surgical exploration of the wound to determine whether the peritoneum has been injured. If the wound has been caused by a bullet, the x-ray is of value if there is no through and through wound. If a point of entrance is present but no point of exit, the x-ray or fluoroscope will reveal the site of the missile and allow some speculation as to the possible course of the bullet and the viscera injured. An erect plate of the abdomen will also reveal the presence of air under the diaphragm if there has been rupture of the hollow viscera. Generalized abdominal tenderness, rigidity, marked shock or evidence of blood loss are usually indicative of intra-abdominal injury. Of course, if evisceration is present the diagnosis is obvious.

Non-penetrating or blunt trauma to the abdomen presents a more difficult diagnostic problem. A decision must be made as to whether there is an intra-abdominal ruptured viscus or hemorrhage from torn mesenteric vessels. If intra-abdominal injury is present these patients usually complain of severe abdominal pain. Tenderness and rigidity is usually marked and shock is often the predominating symptom. There may be vomiting of blood or passage of blood per rectum if the intestine is injured.[17] Trauma to the kidney or bladder is usually manifested in the form of hematuria. The erect x-ray plate of the abdomen may reveal air under the diaphragm if there has been rupture of a gas-filled hollow viscus.[14] Rupture of the spleen is characterized by marked pain in the left upper quadrant and tenderness over the twelfth rib posteriorly. Shock is usually severe and there may be shifting dullness in the abdomen indicative of a blood-filled peritoneal cavity. Rupture of the liver usually produces a similar picture but the most marked findings are confined to the right upper quadrant. Rupture of the intestines is usually characterized by vomiting of blood or passing of blood in the feces together with evidence of early peritonitis and marked tenderness and rigidity. Rupture of the bladder is characterized by hematuria and may be confirmed by the injection of sodium iodide into the bladder and the taking of an x-ray picture. If there is any reasonable doubt as to whether there is intra-abdominal injury or not the best policy is probably to explore the abdomen rather than wait for more definite signs to appear.

EXTRA-ABDOMINAL CONDITIONS

Certain extra-abdominal conditions may so closely simulate symptoms of the acute abdomen that often an accurate diagnosis is almost impossible, however, a carefully taken history and a complete physical examination will usually lead one toward the correct diagnosis.

Coronary Occlusion—Coronary disease is particularly likely to be confused with upper abdominal lesions such as cholecystitis, perforated peptic ulcer and pancreatitis in that it may manifest itself as severe abdominal pain, nausea, vomiting, fever and leukocytosis.[15] A careful examination however usually will reveal evidence of coronary disease together with the fact that rigidity is usually slight or absent and there is no increase in pain on making pressure over the affected area in the abdomen. Signs of peritoneal irritation are absent in that there is no rebound tenderness or referred pain.

Pulmonary Conditions—Early pneumonia is often confused with acute intra-abdominal conditions, however, a careful examination of the chest will reveal a true diagnosis together with the fact that leukocytosis is marked, the febrile reaction greater, and there is a lack of peritoneal irritation.

Spontaneous pneumothorax may occasionally cause confusion but in this condition there is a normal temperature, the leukocyte count is not elevated and the typical chest findings together with an x-ray picture should lead to the correct diagnosis.

Renal lesions, especially those of the right side, are often confused with appendicitis. Renal infection with fever, leukocytosis and pain in the right side is often confused with a suppurative appendix. However, the pain is usually posterior over the twelfth rib and the finding of pus on urinalysis should avoid confusion. Renal colic may simulate an acute abdominal condition but the fact that the pain radiates down the loin toward the testicle together with the findings of red blood cells and hemoglobin in the urine should aid in the differential diagnosis. Often a flat x-ray of the genito-urinary tract will reveal the presence of calculi. Trauma to the kidney must often be distinguished from intra-abdominal injuries. Since renal trauma is often treated conservatively it must be differentiated from intraperitoneal lesions which require a laparotomy. Characteristic findings are gross hematuria together with fullness and tenderness in the costo-vertebral angle.

Cerebrospinal—Certain diseases of the cerebrospinal system often cause confusion with acute abdominal diseases. The gastric crisis of tabes dorsalis may seem to counterfeit the acute abdomen. However, shock is absent, the temperature does not rise, the pulse may increase in frequency but the volume remains good and possibly most important, the abdominal wall is not rigid in the intervals of pain of a gastric crisis. A careful investigation of the pupillary and tendon reflexes will facilitate the making of a correct diganosis.

SUMMARY

Some of the more frequent causes of abdominal catastrophe have been discussed under the heading of inflammation, obstruction, perforation, hemorrhage and trauma together with the more common extra-abdominal conditions which simulate the acute abdomen. Points in the differential diagnosis have been stressed and laboratory aids in diagnosis presented.

COMMENT

It is granted that often an exact diagnosis can not be made. One must decide however whether an acute abdomen exists and if laparotomy is indicated. Only through a rational consideration of the differential diagnosis can an intelligent decision be made and the proper surgical procedure planned.

BIBLIOGRAPHY

1. Abell, Irvin: Acute Abdominal Emergencies, Southern Medical Journal, 31:39. 1938.
2. Adams, William E., and Olney, Mary M.: Mesenteric Lymphadenitis and the Acute Abdomen, Report of Thirteen Cases, Annals of Surgery, 107:395, .938.
3. Cope, Zachery: The Early Diagnosis of the Acute Abdomen, Oxford University Press, 1937.
4. Cutler, George D., and Scott, H. William: Transmesenteric Hernia, Surgery, Gynecology and Obstetrics, 79:509, .944.
5. Eliason, Eldridge, L : Early Diagnosis in Abdominal Surgery, American Journal of Surgery, 31:275, 1936.
6. Ficarra, Bernard J.: Mesenteric Vascular Occlusion, The American Journal of Surgery, 66:168, 1944.
7. Finney, J. M. T.: The Acute Abdomen, New Orleans Medical and Surgical Journal, 87:589, 1935.
8. Gordon-Taylor, Gordon: The Problem of Surgery in Total War, Surgery, Gynecology and Obstetrics, 74:375, 1942.
9. Guerry, LeGrand: Surgical Judgment in the Approach to the Acute Abdomen, Annals of Surgery, 98:922, 1933.
10. Kirby, F. J.: Early Recognition of Acute Abdominal Diseases, Southern Medical Journal, 23:5.2, 1930.
11. Ladd, William E., and Gross, Robert E.: Abdominal Surgery of Infancy and Childhood, W. B. Saunders Company, Philadelphia, 1941.
12. Mann, Bernard: Acute Surgical Conditions in the Abdomen in Gynecology, Medical Record, 132:26, 1930.
13. Metheny, David, Roberts, Edward W., and Stranahan, Allan: Acute Pancreatitis With Special Reference to X-ray Diagnosis, Surgery. Gynecology and Obstetrics, 79:504, 1944.
14. Mulhollond, John H., Bailey, Fred W., and Storck, Ambrose H.: Abdominal Traumas, Panel Discussion, International Abstract of Surgery, 73:-299, 1941, (October).
15. Ochsner, Alton, and Murray, Samuel D.: Pitfalls in the Diagnosis of Acute Abdominal Conditions, American Journal of Surgery, 41:341, 1938.
16. Sherman, William O'Neill: Abdominal Injuries. Surgery, Gynecology and Obstetrics, 58:507, 1934.
17. Storck, Ambrose H.: Diagnosis in Abdominal Trauma,American Journal of Surgery. 56:21, 1942.
18. Thompson, George F., and Fox, Paul F.: Perforated Solitary Diverticulum of the Transverse Colon, The American Journal of Surgery, 66:280, 1944.
19. Vaughn, A. M.: The Acute Abdomen The American Journal of Surgery, 47:602. 1940.
20. Wangensteen, Owen H.: Intestinal Obstruction, Charles C. Thomas, Springfield, Illinois, 1942.
21. Wright, Louis T., and Wilkinson, Robert S.: and Gaster, Joseph L.: Penetrating Stab Wounds of the Abdominal Wall. Surgery, 6:241, 1939.

The aardvark is an ant-eater of Africa—singular and queer in appearance and habit, a long, narrow head, a long tapering tail without hair. It burrows into an ant hill and comes out at night looking for a new and better hill where ants erect a village. It suckles its young. Its name means "earth pig."

Nature is prolific in its species, a wonderment to mankind.

Penicillin and Its Use in Some Infected Surgical Cases*

V. B. PHILPOT, M.D., F.A.C.S

Tupelo, Miss.

To begin with, I think I am correct in stating that there has never been a drug in the history of medicine, certainly not in the last generation, which is so effective as a bacteriostatic agent on many important pathological bacteria as penicillin. In fact, during the last two years this agent has been discussed and written about more than all other remedial agents combined.

HISTORY

I shall not attempt to give you much history concerning this new drug, but the following brief review from an editorial in the *British Medical Journal* published last year may be interesting. It seems apparent that in 1877, Pasteur and Joubert were the first to observe that cultures of anthrax ceased to grow when contaminated with air bacteria; and was the first observance, according to Florey, that a substance produced by one organism is capable of arresting the growth of another.

Fleming of England, in 1929, may be considered the latter day, or real, discoverer of penicillin by noting a conspicuous inhibition of growth in a colony of staphylococcus contaminated by mold, he subcultured the mold in broth and found that a strong antibiotic, nontoxic to animals, passed into the broth from the mold. The mold was later identified by Thom in this country as Penicillium notatum, and Fleming designated the antibiotic agent "penicillin." He found that penicillin inhibited the test tube growth of many gram positive bacteria known to be highly pathogenic to man. Fleming and his associates abandoned further study of the agent. It was used only for laboratory procedures, until 1941.

The clear-cut proof of the clinical usefulness of this drug, its essay and dosage, as well as the mode of its excretion from the body, are credited to Howard Florey and his associates at Oxford, England, in 1938.

In this same issue of the *British Medical Journal,* the editor also generously gives credit to American pharmaceutical and biological houses and their research workers in the large scale production of this drug.

DOSAGE

There is considerable difference of opinion concerning the dosage, amount of drug necessary, and mode of administration; but according to the opinion of a majority of those using this drug, as well as the experience of those having done research with it for many months, the drug is eliminated rapidly by the kidneys and it is necessary to administer it as often as every three hours either intravenously or intramuscularly; or, what is still more preferable, to give it intravenously in a continuous drip.

I think the experience of most users has been to give about 20,000 units every three hours, until the infection for which it is given is under control, or 100,000 units in a continuous drip intravenously in thirty hours. Just how long the drug should be given to a patient depends on the area and virulence of the infection, and the length of time necessary to overcome this infection. Generally speaking, the time runs from thirty hours to eight or ten days, and the amount ranges from 100,000 to a million units.

In addition to the intravenous and intramuscularly methods of administration, it is frequently given intrathoracically, intraspinally, intra-articularly and applied locally. I have had no experience, however, with any method except the intravenous and intramuscular methods of administration, it is scarcity of the drug in civilian practice.

SUSCEPTIBLE AND INSUSCEPTIBLE BACTERIA

There is a great group of bacteria susceptible to penicillin and another group insusceptible to this drug. The following table from an article by Herrell, Nichols and Heilman lists the susceptible and insusceptible ones:

Susceptible Organisms

Diplococcus pneumonia
Streptococcus pyogenes
Streptococcus salivarius
Microaerophilic streptococci
Staphylococcus aureus
Staphylococcus albus (some strains)

---

*Read at the quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society, Columbus, Mississippi, March 13, 1945.

Neisseria gonorrhoeae
Neisseria intracellularis
Actinomyces bovis
bacillus anthracis
bacillus anthracis
bacillus subtilis
Clostridium botulinum
Clostridium tetani
Clostridium perfringens (welchii)
Corynebacterium diphtheriae
Vibrio comma
Micrococci
Streptobacillus moniliformis
Borrelia novyi (spirochete of relapsing fever
Treponema pallidum
Leptospira icterohaemorrhagiae
Spirillum minus
psittacosis virus
Ornithodorus virus

Insusceptible Organisms

Eberthella typhosa
Salmonella paratyphi
Salmonella enteritidis
Shigella dysenteriae
Proteus vulgaris
Pseudomonas aeruginosa (bacillus pyocyaneus)
Pseudomonas fluorescens
Serratia marescens (bacillus prodigiosus)
dlebsiella pneumonia
Haemophilus influenzae
Escherichia coli
Staphylococcus albus (some strains)
Micrococcus albus (some strains)
Monilia albicans
Monila candida
Monilia krusei
Blastomyces
Mycobacterium tuberculosis
Streptococcus faecalis
Brucella melitensis
Plasmodium vivax
Toxoplasma

USES IN CIVILIAN PRACTICE

No, in order that a little clearer conception may be given as to the uses of penicillin over sulfonamides, I shall quote from a paper by Francis G. Blake, New Haven, Connecticut, read at the American Medical Association, which I had the privilege of listening to last June:

The infections which are curable or, if not cured, favorably modified by the chemotherapeutic agents under discussion may be divided into three groups with respect to etiology:

1. Those in which both the sulfonamides and penicillin are more or less effective, though not necessarily equally so, namely, certain gram positive and gram negative coccic infections: hemolytic streptococcus, pneumococcus, staphylococcus, streptococcus viridans, meningococcus and gonococcus.

2. Those in which the sulfonamides are of value but not penicillin; namely, gram negative bacillary infections such as those caused by the colon bacillus, dysentery bacilli, hemophilus influenzae, Friedlander's bacillus and Ducrey's bacillus.

3. Those in which penicillin is of value but not the sulfonamides; namely, syphilis, yaws and possibly other spirochetal infection and those due to the Clostridia—gas gangrene.

Blake also concludes that in the less severe hemolytic streptococcic infections in which there is tissue invasion without suppuration, necrosis or bacteremia, such as erysipelas or lymphangitis, the sulfonamides are ordinarily sufficiently effective to be indicated as the drug of choice, if for no other reason than because of simplicity of administration. The same may be said of the milder upper respiratory mucous membrane infections, such as tonsillitis or pharyngitis, although the real value of the sulfonamides in these infections is still debatable.

In the more severe hemolytic streptococcic infections with suppuration or necrosis with or without bacterium penicillin appears to be much more effective and, consequently, the drug of choice. It often succeeds in bringing about a cure when the sulfonamides have failed . Included in this group are severe cellulitis, mastoiditis with or without intracranial complications, meningits, pneumonia empyema, pericarditis, endocarditis, peritonitis, puerperal sepsis, osteomyelitis, suppurative arthritis and infected wounds.

Also in the two important gram negative coccic infections—meningococcic and gonococcic—penicillin is far more effective, as well as in ophthalmia, endocarditis and prostatitis.

USES IN WARFARE

In the January 27 issue of the *J.A.M.A.* on the editorial page, is a brief review of a symposium on penicillin in warfare from the July, 1944, issue of the *British Journal of Surgery*. I now give you a review of this review from Major General L. T. Ross, Florey and Jennings, Lieut. Col. Jeffery, Lieut. Col.

Bentley, Lieut. Col. Brown, Furlong and Clark, D'Abreu, Major Robinson, and Wise, Pillsbury and Mahoney, which briefly is as follows:

When a soldier is wounded, frequently long intervals elapse before definite surgical measures can be taken. Penicillin is used to bridge this gap and delay and modify, or prevent, the development of sepsis, and is found to be the most powerful antibacterial agent yet brought into clinical use by completely inhibiting the growth of the most sensitive organisms by its bacteriostatic effect. It is the least harmful agent to the human organism yet discovered, and is used many ways; namely, intramuscularly, intravenously for its systemic effect, locally in the wound itself, intraarticularly, intraspinally and intrathoracically—in other words, every way possible.

These officers found that the drug has three main spheres in war surgery: 1) to prevent infection of the wound soon after wounding, 2) to control infection in the first two weeks, and, 3) to combat sepsis in the later stages. It is also found that in a consecutive series of 22 casualties with flesh wounds treated by early secondary suture with penicillin, primary healing was obtained in 95 per cent. That even gas gangrene mortality was cut to 36 per cent with the surgery and antiserum treatment, and as far as gonorrhea was concerned, they treated a thousand cases of sulfonamide resistant gonorrhea with approximately 95 per cent cure.

PERSONAL USE

One may easily presume that the personal experience in the use of penicillin with any one person in civilian practice in this area would not be very great, if for no other reason than because of the scarcity of the drug. We have had only enough of this agent to use in the very worst cases of infection.

I began using it exactly seven and one-half months ago and have since used it in thirty-six cases. Before I report any of these cases, I emphasize the necessity of proper surgical or other treatments necessary while penicillin is being used. We may get some results in infection with penicillin alone, but we will get far greater results if we do whatever else is necessary at the time.

For instance: In wounds, take care of the shock, the proper débridement, cleansing, hemostasis and suturing; in empyema and lung abscesses, the proper drainage and irrigation of the cavities; in peritonitis and other abdominal abscesses, either local or general, the removal of foci of infection, drainage and the open air treatment of wounds as advocated by our own H. A. Gamble of Greenville.

In fact, when there is pus, the proper procedure is to drain. In all cases proper systematic treatments—fluids, saline, glucose, blood transfusions and other adjuncts—should not be neglected.

The following is a brief report of the thirty-five cases I have treated, which includes the diagnosis, operation where necessary and end results of each case:

Name	Age	Final Diagnosis	Operation	End Results
J. A. L.	67	Cholecystitis with Stones	Cholecystectomy	Recovery
K. M. F.	2	Peritonitis from Ruptured Appendix	Incision and Drainage of Abdomen	Recovery
H. S.	26	Placenta Praevia with Hemorrhage, Potentially Infected	Ceasarean Section	Recovery
A. S.	50	Carcinoma of Cecum—Potentially Infected	Resection of Cecum and Ascending Colon	Recovery
N. D.	13	Suppurative Appendicitis; Ruptured	Appendectomy	Recovery
R. M. D.	20	Suppurative Appendicitis; Left Inguinal Hernia	Appendectomy—Repair of Left Inguinal Hernia	Recovery
W. T. B.	67	Cystocele and Rectocele followed by Hypostatic Pneumonia	Repair of Cystocele and Rectocele	Recovery
E. C.	34	Appendiceal Abscess with General Peritonitis	Appendectomy—Drainage	Recovery

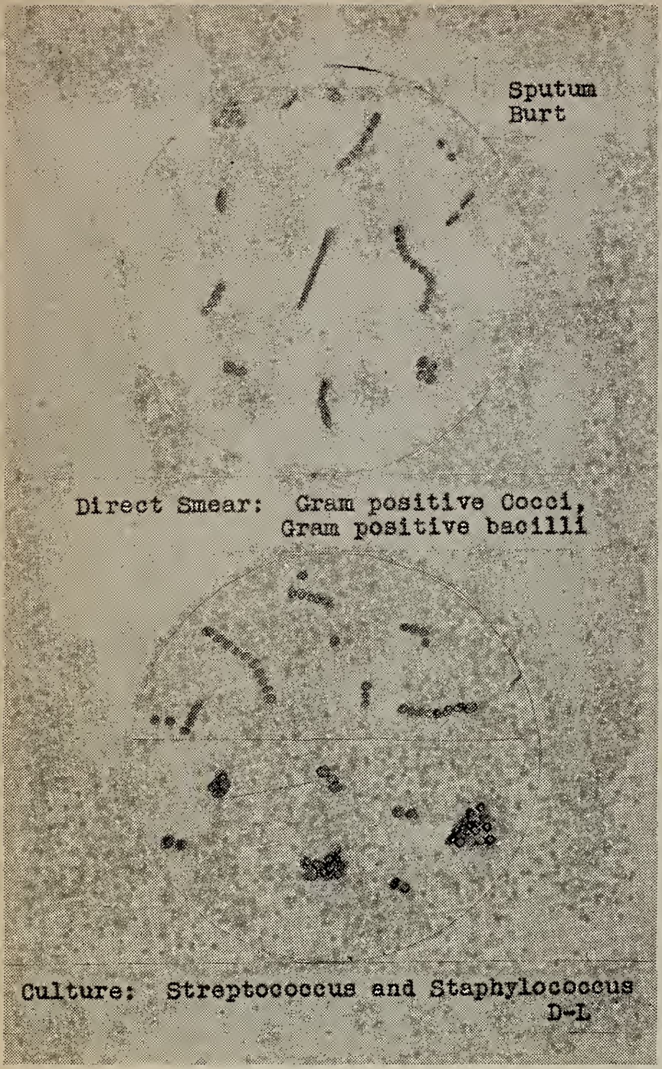
L. C. S.	44	Intestinal Obstruction of Ilium and Part of Duodenum	Liberating Obstruction—Enterostomy	Recovery
J. D. U.	56	Fractured Rib—Traumatic Pneumonia		Recovery
R. S. P.	15	Large Abscess of Appendix, Right Tube and Ovary; Ruptured—Local Peritonitis	Appendectomy—Right Salpingo-oophrectomy—Drainage	Recovery
J. E. P.	9	Suppurative Appendicitis—General Peritonitis	Incision and Drainage of Abdomen	Died
R. S. M.	14	Appendiceal Abscess—Ruptured	Appendectomy—Drainage	Recovery
C. F.	37	Acute Suppurative Appendicitis	Appendectomy—Drainage	Recovery
C. L.	38	Double Pyosalpinx—Double Ovarian Cysts—Fibroid Uterus	Bilateral Salpingo—Oophrectomy—Hysterectomy—Drainage	Recovery
R. K. H.	23	Appendicitis—Ruptured on Removal—Abscess on Right Tube and Ovary	Appendectomy—Right Salpingo-Oophrectomy	Recovery
E. L.	19	General Peritonitis Seven Days Delay	Stab Wound a Few Hours Before Death	Died
J. H.	16	Ruptured Appendix	Appendectomy—Drainage	Recovery
G. F. D.	65	Perforated Duodenal Ulcer	Repair of Duodenal Ulcer	Recovery
L. P.	37	Pneumonia—Phlebitis—Two Weeks After Appendectomy		Recovering
L. C.	23	Second and Third Degree Burns of Legs and Lower Half of Thighs		Recovering
D. M.	25	Second and Third Degree Burns of Legs and Lower Half of Thighs	Skin Graft	Recovering
C. C.	35	Third and Fourth Degree Burns of Entire Body, Thighs and Legs		Died
G. H.	15	Suppurative Appendicitis—Ruptured—Peritonitis	Appendectomy—Drainage	Recovery
G. F.	9	Appendiceal Abscess— Ruptured—Peritonitis	Appendectomy—Drainage	Recovery
H. B.	39	Localized Empyema of Right Chest	Thoracotomy—Drainage	Recovering
G. C.	36	Double Pyosalpinx Suppurative Appendicitis	Bilateral Salpingectomy—Drainage	Recovery
J. W.	3	Cellulitis	Appendectomy	Recovery
J. D. W.	13	Sinusitis		Recovery
B. P.	55	Gonorrhea		Improved
6 Cases				Recovery

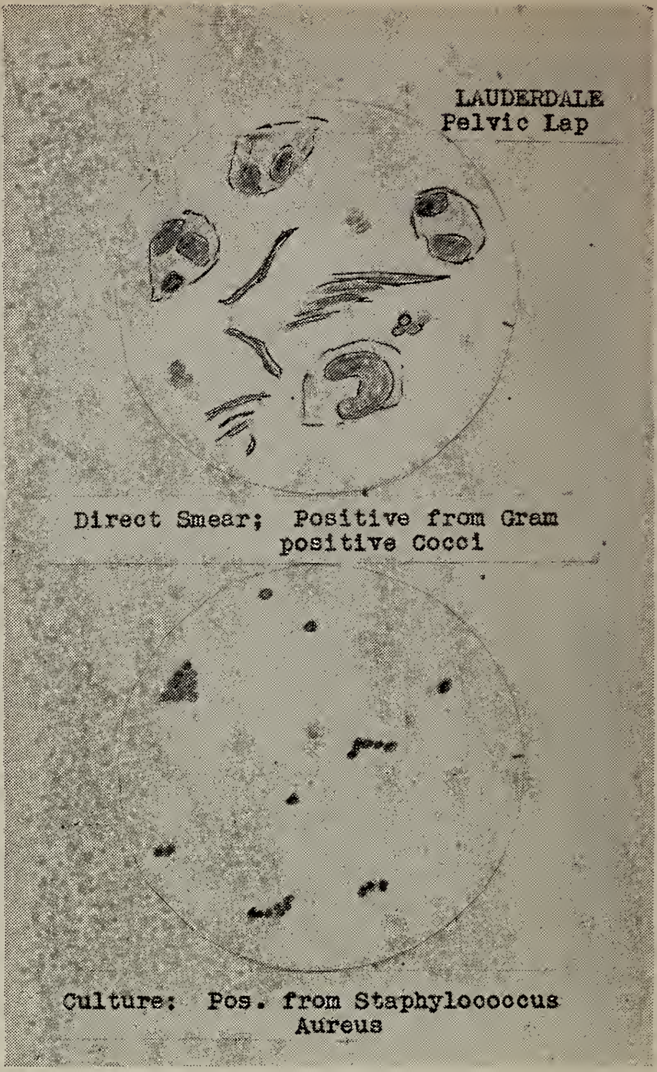
(Lantern Slide Demonstration)

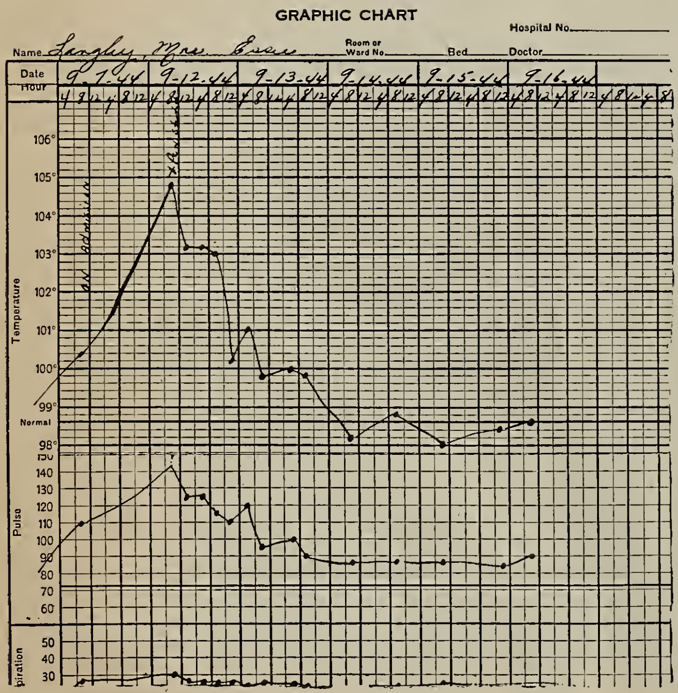
The following slides showing copies of the above cases will give you some idea of the temperature and pulse behavior following the use of penicillin.

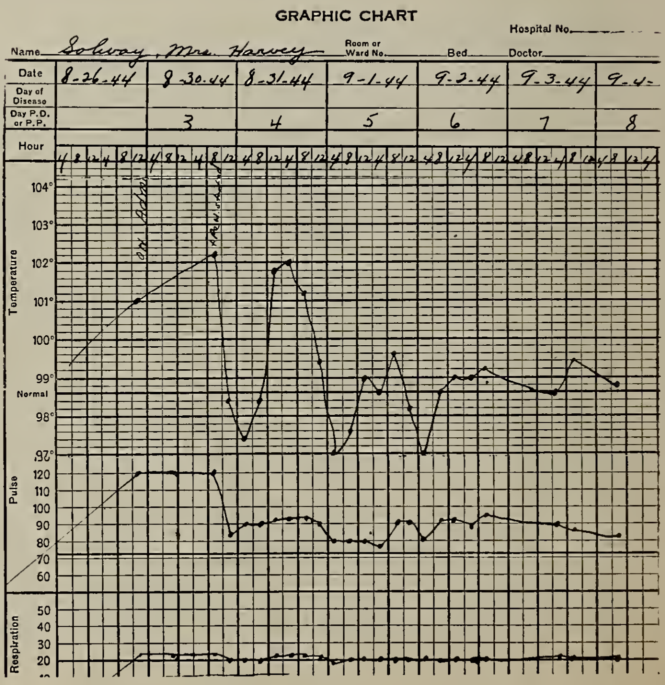
The last slides demonstrate the bacteria present in a few typical cases.

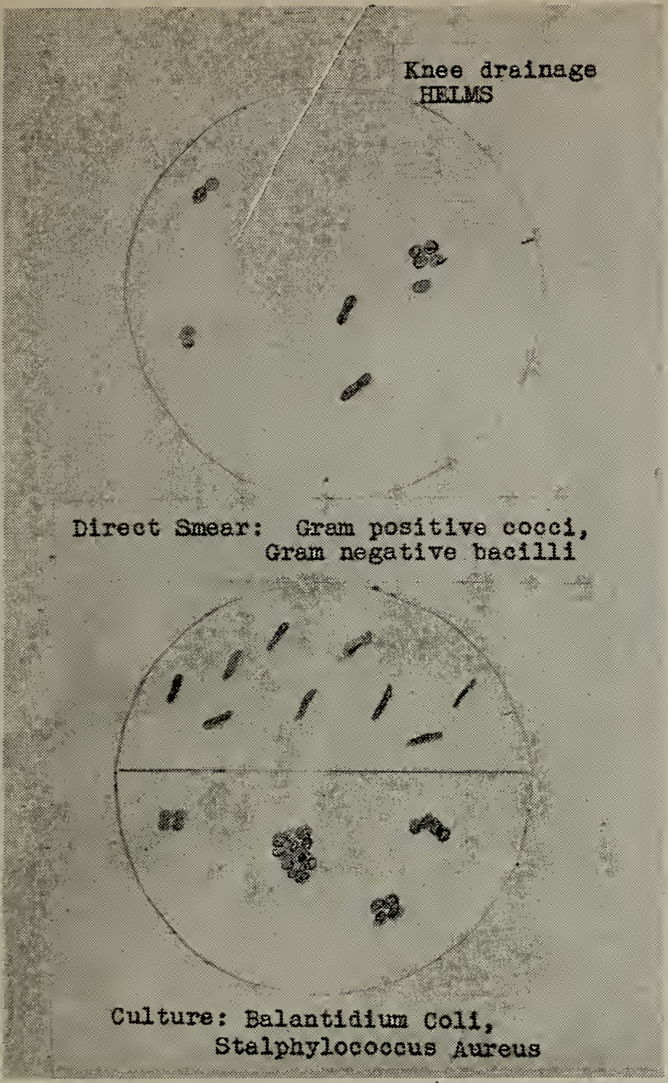
I am indebted to Misses Lucas and Dunovant, technicians at the Community Hospital, at Tupelo, for their drawing of the bacteria.

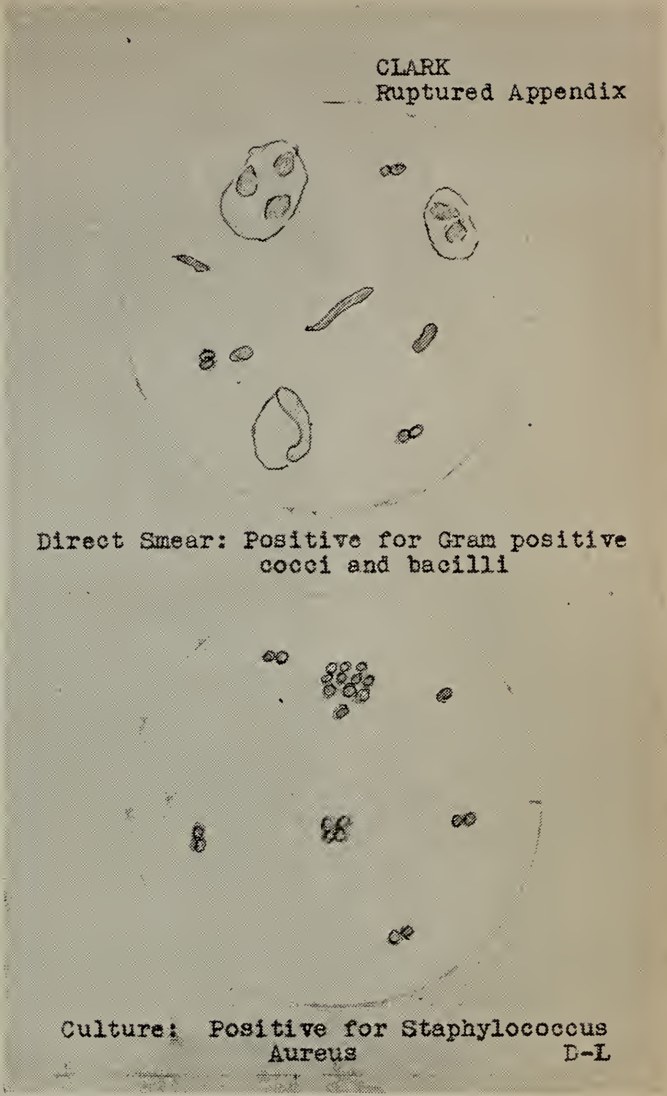

Sputum
Burt
Direct Smear: Gram positive Cocci, Gram positive bacilli
Culture: Streptococcus and Staphylococcus
D-L

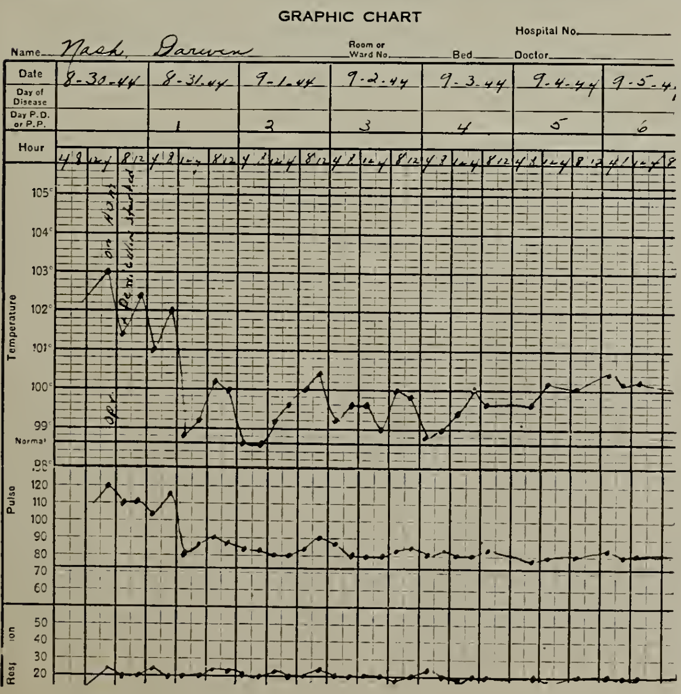

LAUDERDALE
Pelvic Lap
Direct Smear; Positive from Gram positive Cocci
Culture: Pos. from Staphylococcus Aureus


GRAPHIC CHART
Hospital No.
Name Langley, Mrs. Essie
Room or Ward No.
Bed
Doctor
Date
Hour
9-7-44
9-12-44
9-13-44
9-14-44
9-15-44
9-16-44
4 8 12 4 8 12
On admission
Penicillin
Temperature
106°
105°
104°
103°
102°
101°
100°
99°
Normal
98°
Pulse
150
140
130
120
110
100
90
80
70
60
Respiration
50
40
30


GRAPHIC CHART
Hospital No.
Name Solway, Mrs. Harvey
Room or Ward No.
Bed
Doctor
Date
8-26-44
8-30-44
8-31-44
9-1-44
9-2-44
9-3-44
9-4-
Day of Disease
Day P.O. or P.P.
3
4
5
6
7
8
Hour
4 8 12 4 8 12
On Adm.
Penicillin
Temperature
104°
103°
102°
101°
100°
99°
Normal
98°
97°
Pulse
120
110
100
90
80
70
60
Respiration
50
40
30
20


Knee drainage
HELMS
Direct Smear: Gram positive cocci,
Gram negative bacilli
Culture: Balantidium Coli,
Stalphylococcus Aureus

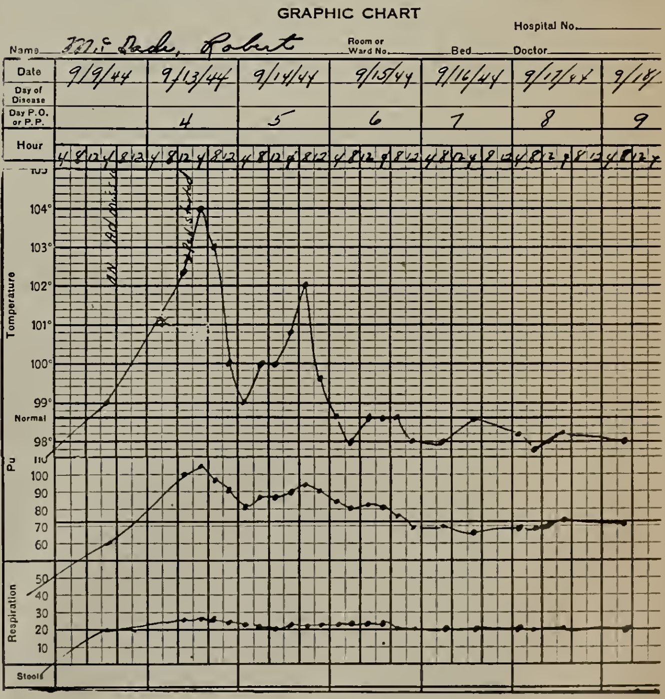

CLARK
Ruptured Appendix
Direct Smear: Positive for Gram positive
cocci and bacilli
Culture: Positive for Staphylococcus
Aureus D-L


GRAPHIC CHART

Hospital No.

Name Nash, Darwin Room or Ward No. Bed Doctor

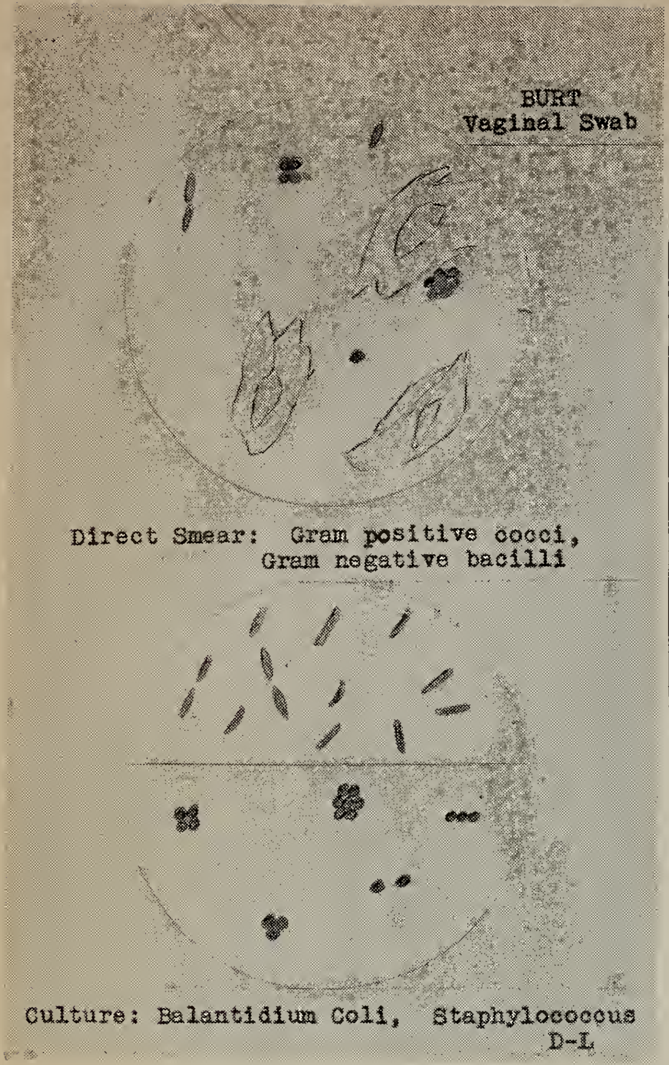
Date	8-30-44	8-31-44	9-1-44	9-2-44	9-3-44	9-4-44	9-5-4
Day of Disease							
Day P.D. or P.P.		1	2	3	4	5	6
Hour	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8

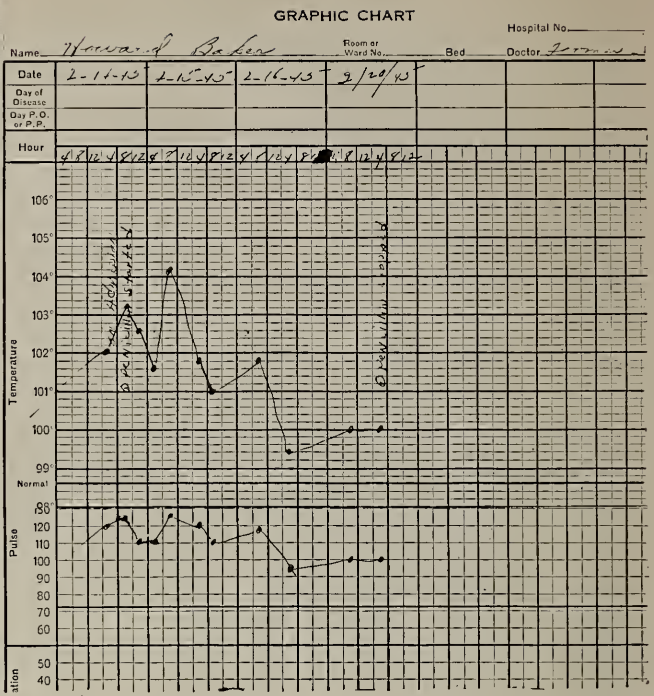

GRAPHIC CHART

Hospital No.

Name Mc Dade, Robert Room or Ward No. Bed Doctor

Date	9/9/44	9/13/44	9/14/44	9/15/44	9/16/44	9/17/44	9/18/
Day of Disease							
Day P.O. or P.P.		4	5	6	7	8	9
Hour	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4 8 12	4 8 12 4


BURT
Vaginal Swab
Direct Smear: Gram positive cocci,
Gram negative bacilli
Culture: Balantidium Coli, Staphylococcus
D-L



LIFE IS LARGELY WHAT WE MAKE IT

John Dale Kempster

Life Surely is a see-saw thing;
We never know just what 'twill bring.
Sometimes it lifts us "high in air"
Where skies are blue, and all is fair;
Sometimes it "bumps" us down to earth
Mid gloomy days of little worth;
But never mind how dark the clouds
Nor blue the thoughts, that come in crowds,
We know somewhere the sun is shining
And every cloud hath silver lining;
So lift your head, throw out your chest,
Put on a smile and do your best,
Stand firm in will, there's naught can beat it,
For after all, Life's what we make it.

Typhus Fever*

O. P. STONE, M.D.

Ripley, Miss.

THERE ARE several reasons why typhus fever is an appropriate subject for discussion at the present time. One of the chief reasons is that the prevalence of this disease has increased gradually in the United States during the past few years and has shown a rather marked increase in the state of Mississippi during the past two and one-half years. It is of importance to note that already ninety-one cases of typhus fever have been reported in Mississippi during 1944.

Another reason that typhus fever deserves some attention and discussion is that many of our soldier boys are at the present time fighting in areas where typhus fever occurs in epidemic form. These boys may soon return to this state and unless some precautions are observed they may bring the epidemic form of typhus to our own communities.

In a discussion of typhus fever one should observe that there are two forms of the disease namely, the epidemic and endemic forms. The epidemic form is seen mainly in Europe where it has ravaged the population of the Balkan States and parts of Italy and Russia for generations, with marked increases in the prevalence of the disease during each of the numerous wars that have occurred in this area. The vector of epidemic typhus is the body louse.

Endemic typhus fever, which is the form seen in the United States, differs from the epidemic type in that it is a much milder disease and has a mortality only about one-third as great. The vector of endemic typhus is the rat flea. It seems that the type of vector determines to a great extent the severity of the disease and this may account for the occurrence of two forms of typhus fever.

Typhus fever is an acute specific infectious disease, occurring in epidemic and endemic forms. It is characterized by a sudden onset, maculopapular eruption, toxemia, high fever, and severe nervous symptoms. The disease lasts about fourteen days and terminates usually by crisis. It is transmitted by the body louse or other insect vector and the convalescent period is usually prolonged. The exciting cause of typhus fever is the Rickettsia Prowazeki which is a pleomorphic organism occurring as minute, paired ovoid bodies, and in filamentous forms. Therefore, it takes the classification of a rickettsial disease along with Rocky Mountain spotted fever, trench fever, and others. It will be noted that there is always a marked increase in the prevalence of typhus fever during wars, famines, and economic distress when overcrowding, lack of facilities, and lack of attention to bodily cleanliness predispose to the spread of the disease.

The period of incubation is usually about twelve days, but variations from eight to fourteen days are not uncommon. During the latter days of the incubation period the symptoms of weakness, malaise, and slight rise of temperature may be noted. The actual onset is usually abrupt with chill, rapid rise of temperature to 103° and mild delirium. The temperature remains high with mild variations for about two weeks. In cases terminating favorably the temperature declines by rapid lysis or crisis. Cough, headache, muscular pains, loss of appetite, and nausea and vomiting are common symptoms.

In the early stages of the disease the eruption is the most diagnostic physical finding. However, this usually does not occur until the third to the fifth day. In contradistinction to typhoid fever the rash of typhus comes out in a single crop. These spots are macular in character at first but may become large purplish splotches as extravasation of blood occurs under the skin. With the onset of the rash, the signs of toxemia and especially cerebral symptoms become more marked and may even lead to coma. The occurrence of red blood cells in the urine is not uncommon.

Typhus fever is accompanied by a milk leukocytosis averaging about 12,000 in uncomplicated cases.

The Weil-Felix agglutination reaction, performed by using standard cultures of Bacillus proteus X19, is positive in almost all cases and either the macroscopic or the microscopic may be used. This procedure can be done by the Mississippi State Laboratory at Jackson and is used as proof of the diagnosis.

The complications of typhus fever vary in different localities. In the endemic form the most common complications are bronchitis, bronchopneumonia, meningismus, phlebitis, and otitis media. Occasionally such complications as suppuration of the salivary glands and gangrene of large areas of skin are seen.

---

*Read at Northeast Mississippi Thirteen Counties Medical Society, Amory, Miss., Sept. 12, 1944.

The gross pathological changes as found at autopsy are not pathognomonic in typhus fever. The distinctive lesions are microscopic. The skin shows the petechial rash persisting after death and may show areas of skin necrosis and gangrene. The blood is of dark color and coagulates slowly. If death occurs during the first two weeks the spleen may be enlarged. Areas of bronchitis and bronchopneumonia are commonly found in cases terminating fatally.

Microscopically, the distinctive lesions of the disease involve the smaller vessels, notably those of the skin and of the brain, thus accounting for the two most characteristic symptoms of the disease—the skin rash and the central nervous system manifestations. Degeneration and necrosis are noted in the endothelial lining of the vessels succeeded by formation of thrombi and finally to loss of continuity of the wall and extravasation of blood.

The treatment of typhus fever is purely symptomatic. Good nursing care is known to affect the mortality rate materially. Absolute bed rest is essential; precautions should be taken to prevent the patient, in his delirium, from doing himself harm. His diet should be liquid or soft in nature and fluids should be forced. Constipation should be treated by enemata and the observation of retention and need for catheterization should be noted. Morphine and codeine have been found of distinct value in controlling restlessness, coughing, and pain. Stimulants such as digitalis, camphor, and caffeine have their place. Bed sores should be guarded against by frequent change of position and by pressure pads. Especial routine care of the mouth is an absolute necessity.

The prophylaxis of this disease is of especial importance and may be summed up in the control of the insect vectors. This may not be a simple procedure, particularly where numerous cases are being handled. The United States Army has recently demonstrated that delousing can be effectively accomplished by a powder insecticide sprayed into the clothing by small spray guns. This was demonstrated when they recently deloused 80,000 inhabitants of Naples, Italy, in a matter of a few hours to stop an epidemic in that area.

The typhus fever present in Mississippi can only be controlled through the control of rats. This can be accomplished by poisoning, trapping, and rat proofing. To be effective, control efforts must be continuous and widespread. It is well to remember that the rat acts as a reservoir for the disease and that more and more of our rats are becoming infected as the disease spreads. Stamp out the rat and the problem is solved as far as present information indicates.

There is a polyvalent vaccine for typhus fever that should be used in exposed areas. At the present time I believe this vaccine is not available for civilian use but probably will be immediately after the war.

It seems that President Truman strikes a home run almost every time an important matter is tossed him across the plate. Maybe he will come out for a Secretary of National Health. In the health of the people is the strength of the nation. Surely we should have a secretary of health in the cabinet. The time is propitious for the entire medical profession to make a concerted effort to interest President Truman and our Congress in this very important matter. The very large number found unfit for military service should add power to this request at this time. Our government, our medical profession, and our people should make definite plans to build a citizenship able to function in a superior way when the life of our nation is at stake. The building of health reserves should be the order, mental, moral, and spiritual.

The Mississippi Doctor

Published monthly at Booneville, Mississippi

Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

OFFICIAL ORGAN OF
Mid-South Postgraduate Medical Assembly
Mississippi State Medical Association

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ... .Assistant Editor

David E. Guyton, Blue Mountain College ......Poet

Mid-South Postgraduate Medical Assembly

OFFICERS:

C. H. Lutterloh, M. D. ....President
Hot Springs, Ark.
J. C. Pennington, M. D. ....President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. ....Vice-President
Greenville, Miss.
John A. Moore, M. D. ....Vice-President
El Dorado, Ark.
A. F. Cooper ....Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. ....Director of Exhibits
Memphis, Tenn.

EDITORS:

Fay H. Jones, M.D. E. M. Holder, M.D.
C. R. Crutchfield, M. D. C. M. Speck, M.D.
H. King Wade, M. D. F. M. Acree, M.D.

Mississippi State Medical Association

EDITOR

Lawrence W. Long, M.D.

ASSOCIATE EDITORS

J. G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

It seems to be admitted even by officials of the American Medical Association that Mississippi has had one of the very best two-year medical schools in the United States for more than forty years. The record the two-year men from Ole Miss have made on examinations and in practice confirms this general impression. Mississippi has perhaps the best public health service in the United states. It also has an excellent distribution of hospitals

Mississippi is among the lowest states in death rates from appendicitis, South Carolina being the lowest and Nevada (which has the greatest number of beds per population) having the highest death rate for appendicitis. Nevada has bigger hospitals farther apart, the ideal system according to some, but a high death rate—"operation a success, but the patient died."

§

There are only two places a sound-bodied doctor should be found now—one in the armed forces, the other in practice up to his ankles with his head down.

§

We deeply regret the death of Dr. A. L. Blecker of Memphis. In every way he held high the banner of the profession, able, kind, and considerate. He was deeply devoted to the profession and made duty his watchword.

§

The return of a few thousand soldiers at this time to aid farming, industry, and business in general, and with them a few hundred doctors to fill in the places where the old doctors are falling in civil combat and where the people are without medical service, would be mighty good war economy.

§

Dr. V. B. Harrison of the University of Mississippi observes that Mississippi is rapidly becoming a state of children and old people, the able middle aged seeking their fortunes in other states. We are quite sure that this observation is true.

Aside from the challenge such a situation creates for making our state one of greater opportunity, there is a special responsibility resting on the medical profession. In the specialty of pediatrics in Mississippi much has been done within the last few years, Dr. Harvey Garrison being looked upon as a leader, but we do not have a man in the state giving special attention to geriatrics. We should have. In fact the only man we know in this territory specializing in the practice of the aged is Dr. Piatt Anderson of Memphis. The culture, the refinement, the knowledge and the wisdom of the aged that is going to waste is enough to enrich our nation. We do not give due consideration to our aged. If a man keeps mentally and physically fit he should be worth more to human society every day he lives although he lives to be a full hundred. We also fail to appreciate the loyal sons who has stayed at home to help build Mississippi.

In the proceedings of the staff meetings of the Baptist Hospital of Jackson, Dr. Harvey F. Garrison reports a case of influenza memingitis which recovered and which was treated with sulfadiazine and rabbit haemophilus influenza serum. We understand this is the only case of this type which has ever recovered at the Baptist Hospital.

§

We had a few lines recently from Dr. W. H. Scudder of Mayersville, the only doctor practicing in Issaquena County. He is so busy making history that he did not have time to furnish the account we desired. Dr. Scudder has been right on the job for more than fifty years. He has the spirit of a real doctor and he is patriotic to the *n*th degree. He is deeply devoted to duty and in this time of doctor shortage he is holding the lines just as his Confederate father did in the War Between the States. All alone he holds on and stands at the switch to keep medical service moving in his county. We appreciate and admire him and so does the entire profession of the state. It is his kind which wins wars and makes a nation secure in peace.

§

The Future of a Four-Year Medical School in Mississippi

J. K. AVENT, M.D.,
Grenada, Miss.
President-Elect, Mississippi State Medical Association

No state will progress farther than the health of its citizens. The past in the field of medicine in Mississippi has been relegated to the archives of history. The future will be what the physicians, legislators of Mississippi, and the public as a whole fix as their aim and duty.

The essential need of Mississippi today is a four-year medical school and a large state hospital for clearance of all complicated medical cases. The most scientific and most thorough treatment for prevention, cure or alleviation of disease—the science of medicine with lower mortality and lower morbidity—is taught in medical schools and practiced in their vicinity. In a modern state hospital, cancer, a condition now so terribly neglected in Mississippi, could be treated with x-ray and radium, with less pain and the loss of fewer lives. Poliomyelitis cases could secure hospitalization until complete recovery, instead of the individuals so afflicted having to go through life paralyzed. A great laboratory for teaching technicians and conducting bacteriological work is necessary.

Doctors could send their difficult cases from all locations in the state, by ambulance, for consultation. The postgraduate courses which could be offered to physicians of the state would be reflected in benefit to the laity. A home postgraduate course is essential. Some doctors will not go to other states for postgraduate work once in ten years, but if it were available at home, they would go once or twice a year.

With a large state hospital, the nursing problem could be solved. The best nurses in the world are those who graduate from small hospitals, yet they are not recognized, as evidenced by the fact that they are not acceptable to the Army Nurses Corps. Mississippi nurses could spend part of their time in the state hospital and solve this essential problem.

Mississippi boys do not desire to leave our state for study of medicine in other states, never to return to their home state, but that is the fate our state imposes upon them in not offering adequate hospital, medical school and internship training. We do not have to ask any other state for a so-called manufacturing plant of doctors. We of Mississippi can decide our own fate. These boys are the long staple brains of our colleges. Let Memphis, New Orleans, Philadelphia, New York, etc., consider their assets in Mississippi boys forced away from home to attend professional schools. God forbid that it shall continue. We know our needs; we do not rely upon an out-of-state man to decide our problem. The medical profession in Mississippi needs its morale lifted, and that can be accomplished permanently by a large central hospital and the addition of two more years of medical school. Among other benefits is the fact that internal medicine and surgery would be elevated to a higher level with all other specialties.

We spend millions on highways, schools, and other public benefits, even hospitalization of the poor, but fail miserably to finish the job by obtaining the best scientific skill. The lives of Mississippians are placed in the palm of our hand—the hand of the medical profession of the state. Will you strengthen it, or will you let it spill these lives? The primary consideration is not the cost, but the need, and that need is apparent to the citizen with foresight **now**.

May there be a beautiful sunrise in the medical career of Mississippi, and God's eternal blessings on the sick, the medical personnel, and the public. With all our wealth and oil, we cannot go farther than our health. Health is the gold of our state that will not tarnish. May we in the near future be broadcasting medical science to the world from Mississippi, instead of listening in on stations of other states.

The question is not when can we attain this objective, or how. The quickest way is the best. May our excellent governor call a special session of the legislature and give promise to the sick and diseased citizens of Mississippi that our state may offer the facilities of a large, modern hospital and that we shall allow Mississippi's medical students the opportunity of completing four years in medicine in their home state. Let us spend money on men, as well as on buildings.

Shall we continue to let disease take a high toll of our loved ones, or shall we conquer it? Shall Mississippi take her rightful place as a leader in the medical profession, or shall we continue to let surrounding states reap the honor and prestige of medical advancement? I say, we shall go forward!

§

EMERGENCY STATE MEDICAL MEETING 1945

The president, Dr. Crawford, the president-elect, Dr. Avent, the secretary, Dr. Dye, and the Council are to be complimented in the way that the Mississippi State Medical meeting was called and handled under the wartime restrictions. The Constitution and By-Laws did not completely anticipate such an emergency, and it is hoped that the committee concerned therewith will study and make recommendations to our next meeting for such changes as needed so that there will be no misunderstanding by anyone if ever such an emergency should again occur. This committee is composed of Dr. D. W. Jones, Dr. W. W. Crawford, and Dr. W. H. Frizell—all are able, capable and well grounded in the fundamentals of our medical organization.

Since this was an emergency session, only the necessary business was transacted. An open meeting of the Council was held in the morning which was converted into a meeting of the House of Delegates, with a quorum plus proxies from the delegates, which conformed to the ruling of the Office of Defense Transportation so that the meeting consisted of less than fifty people required to travel to the meeting. After selection of a nominating committee, the group adjourned for lunch at which Governor Thomas L. Bailey made an inspiring address with emphasis on the building of a medical center in Jackson. This seemed to meet the approval of the whole group. The nominating committee chairman, Dr. E. C. Parker, reported to the House of Delegates the nine men required to be nominated to the governor, from which he will appoint three to become members of the State Board of Health for a term of six years each. This was an absolute necessity as required by the laws of Mississippi. The committee then wisely reported that they recommended the retention of all officers in status quo until the next meeting of the State Medical Association. After certain resolutions were adopted, the meeting adjourned.

While it was unfortunate that we are engaged in a global war which prevented a regular meeting of the State Medical Association, it was coincidental that this absolutely necessary type of meeting was held on V-E Day. It seems most likely that May of 1946 might find us under conditions which will allow us to convene in regular meeting as usual—we all hope that such will be the condition. It is also quite significant that these men who are and have been interested in organized medicine and its business activities were all present and interested as usual. Organized medicine is the bulwark and mainstay of the medical profession as proved by the years. The sages are required as advisers and a stabilizing influence, but I feel that the time has come, as the end of the global war in which we are involved approaches, for these men who have so long given their time, ability, and advice, to adopt and train an understudy, if you please. I believe that the younger men under forty who will return from the war soon, we hope, must be encouraged by indoctrination, training and advice from those who have been interested leaders so long to become interested and active in organized medicine. This might well become an objective of the Past-Presidents Club.

Exchange of good ideas is necessary for progress. Therefore, the medical societies of the state and progressive doctors are requested to forward to the editor of the Association medical essays and articles of interest. Review of the literature will become more interesting and complete than in the past. Your coöperation is needed and requested. Your suggestions are welcome.

L.W.L.

§

News and Comment

Dr. Edgar G. Ballenger, Atlanta, president of the Southern Medical Association, died Friday morning, June 1, and the funeral was held Saturday afternoon. His death was caused from a fall in his hotel.

Dr. Ballenger was born November 20, 1877, in the Blue Ridge Mountains near Tryon, North Carolina. He was graduated with the M.D. degree from the University of Maryland in 1901 and began practicing in Atlanta in 1904. He was one of the outstanding urologists of the nation. A most cordial and magnetic personality, he was a past-president of the American Urological Association and organized and served as the first president of the Southeastern Surgical Congress. He leaves a son, Cpl. Edgar Ballenger, Jr., at Keesler Field, a sister, Mrs. J. B. Mosely, Atlanta, daughter, Mrs. C. M. Foster, Atlanta, and a brother, Claude W. Ballenger of Tryon, North Carolina.

A great spirit of the Southern Medical Association is no more and the great city of Atlanta has lost one of her best loved physicians.

§

Dr. E. Vernon Mastin, St. Louis, Missouri, who was elected vice-president of the Southern Medical Association at its last annual meeting, succeeded to the presidency of this great medical association on the death of Dr. Ballenger. He is worthy in every respect and will grace the position well.

Dr. William Bradley of Conway, Ark., died on June 1 at the age of 71. He was a native of Alabama and practiced at Blocton for forty years. He was an able practitioner and a good citizen.

It is with deep regret that we learn of the passing of Dr. E. C. Boyd of Amory. He was one of the anointed in general practice in the country, one of the best informed men in medicine in the state. He lived a great life because he served well with his heart and soul in the practice of medicine. He was indeed a war casualty in civil practice. Also, Dr. W. F. Coleman was another faithful practitioner and a fine citizen who paid the price.

JUNIOR COTTON QUEEN

Miss Martha Robins, daughter of Dr. and Mrs. R. B. Robins, is the new Junior Cotton Queen of Camden, Ark. Dr. Gus Street and Dr. W. H. Anderson recall the warm hospitality extended by the Robinses when these two Mississippi men were on program in this fine town.

REFRESHER COURSE

The University of Illinois College of Medicine announces its sixth semi-annual refresher course in laryngology, rhinology and otology, September 24 through September 29, 1945, at the College, in Chicago. The course is intensive and largely didactic, but some clinical instruction is also provided.

Write to Dr. A. R. Hollender, Chairman, Refresher Course Committee, Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

SIX-DAY PROGRAM

The Department of Legal Medicine of the medical schools of Harvard, Tufts, and Boston University in association with the Massachusetts Medico-Legal Society will present a six-day program, October 1-6, 1945, of lectures, conferences, and demonstrations having to do with the investigation of deaths in the interest of public safety.

EYE BANK

The formation of the Eye Bank for Sight Restoration, New York City, which collects and preserves healthy corneal tissue from human eyes for transplanting to blind persons, is a forward step in medical and surgical education. The purpose of this organization is to make available to hospitals and surgeons healthy corneal tissue, removed by consent of the next of kin a few hours after death. This operation to restore sight to the blind is effective in only one type of blindness—that caused solely by opacity of the cornea when the rest of the eye and optic nerve are normal.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—**James G. Thompson, Jackson.**

Ear, Nose and Throat—**Edley Jones, Vicksburg.**

Obstetrics and Gynecology—**J. F. Lucas, Greenwood.**

Orthopedics—**Thomas H. Blake, Jackson.**

Public Health—**Felix J. Underwood, Jackson.**

Pediatrics—**Harvey F. Garrison, Jackson.**

Radiology and Roentgenology—**Karl O. Stingily, Meridian.**

Surgery—**W. H. Parsons, Vicksburg.**

Urology—**Temple Ainsworth, Jackson.**

DERMATOLOGY

Archives of Dermatology and Syphilology, Vol. 51; No. 3, March 1945, p. 210.

CANCER OF THE EYELID. Lester Hollander and Francis J. Krugh, Am. J. Ophth. 27:244, March 1944.

In a group of 2,601 patients suffering from cancer of the skin in one form or another treated at the Pittsburgh Skin and Cancer Foundation, 239 had cancer of the eyelid. The authors, however, report only on 125 of the 239 cases. They first discuss the anatomic and the morphologic aspects of cancer of the eyelid and its differential diagnosis and classify it according to microscopic appearance in one of four groups: 1) the basal cell, or hair matrix type: 2) the squamous cell, or epidermoid, type; 3) the mixed cell type and 4) the melanoma type. Of the 125 patients under discussion, 79 were men and 46 were women. Their ages ranged from 25 to 80 years. It is the opinion of the authors that cancer of the eyelids should be excised whenever possible. In carrying out surgical repair the following considerations must be kept in mind: 1) that careful repair of the palpebral conjunctiva when it has been damaged is imperative; 2) that proper support of the eyelids depends on properly reconstructed tarsal plates; 3) that distortions of the margin of the eyelid which cause inversion of the cilia are to be avoided, and 4) that undue scaring is followed by retractions and formations of an ectropion, which also have to be avoided. Thirty-five of the 125 tumors were treated surgically, with thirty good and five bad results. Radio knife excision followed by repair with pedicle grafting was carried out in twelve instances, with nine good and three bad results. In another group of cases, in which the growth occurred at the inner cantheus and was firmly fixed to the fibrous structures of the surrounding area, electrodessication was used. This was done in thirteen cases, with seven good and six bad results.

There were a number of reasons which prompted the use of methods other than surgical. These included the following: 1. The cancer was considered inoperable on account of its extension and size. 2. The patient was considered a poor operative risk. 3. The patient refused operation. In these instances roentgen irradiation was used. An eye shield made of soft lead alloy is used to protect the eyeball. It was sterilized by allowing it to remain in 70 per cent alcohol for ten minutes and then placing it in sterile water for five minutes to remove all traces of alcohol. Sterilized liquid petroleum was then dropped on the concave surface to act as a lubricant. The energy was obtained from a Shaoul type of tube which has a focal roentgen ray skin distance of three to five cm., depending on the length of the applicator used. Daily treatment of 500 r each were given, and these varied from ten to twenty, depending on the severity of the reaction produced. If the contact Chaoul tube for irradiation is not available, low roentgen rays may be used. Hollander and Krugh gave 350 r of low voltage radiation to carefully shielded areas in daily treatments, usually ten consecutive daily treatments being required. Thirty-eight patients were treated with roentgen rays, seventeen with the Chaoul contact modality. Good results were obtained in twelve and bad results in five cases. Twenty-one tumors were treated with the ordinary low voltage eradiation, with fourteen good and seven bad results. There were instances in which several methods of treatment-excision, electrodessication, roentgen rays and radium had to be used. All twenty-three patients were so treated, with seventeen good and six poor results.

PEDIATRICS

LOCAL PENICILLIN THERAPY IN OPHTHALMIA NEONATORUM—Sorsby, Arnold and Hoffa, Elizabeth: British Medical Journal, 1:114, January, 1945.

"Unlike the sulfonamides, penicillin remains effective in the presence of pus. It therefore has possibilities for the local therapy of ophthalmia neonatorum as an alternative to general sulfonamide treatment of this affection. To investigate this possibility 47 infants at the Ophthalmia Neonatorum Unit at White Oak (L.C.C.) Hospital were treated with penicillin."

1. "Initially, penicillin was used in a concentration of 500 Oxford units per cc. Eight cases received this treatment, one drop of the solution being instilled hourly during the first twenty-four hours, and continued two-hourly subsequently. Only three of these eight cases were cured. Two more showed an initial recovery, which, however, was not maintained. The three cured cases required treatment for two, three, and six days, respectively."

2. "A second series of seven cases were treated with penicillin, this time in a concentration of 1,000 units per cc., the method of application in three cases being as in the first series, and in the remaining four cases the penicillin was instilled at half-hourly intervals for twenty-four hours and hourly subsequently. Four of this series of seven cases clinical clinical cure in two, four, two and five days, respectively; one case did not respond to treatment, while the remaining two cases both relapsed after an initial recovery."

3. "A further ten cases constituted a third series treated with penicillin, this time in a concentration of 1,500 units per cc., (the drops being instilled half-hourly during the first twenty-four hours and hourly subsequently). Six of these ten cases showed an excellent response, clinical cure being obtained in eighteen hours in one case, in two days in four cases, and in three days in the remaining case successfully treated. Two cases showed a poor response in spite of treatment for four and one-half and five days, respectively; in one case penicillin treatment was discontinued after three days as progress appeared inadequate; in the remaining case of this series an initially satisfactory response which gave a clinical cure within two days was followed by a relapse which did not respond to further penicillin therapy."

4. "Twenty-two infants were treated with penicillin in a concentration of 2,500 units per cc., the drops being instilled half-hourly for the first three hours, then hourly for twenty-four hours and two-hourly subsequently. In all but one case there was an excellent clinical response, recovery in some instances being a matter of a few hours." Clinical cure occurred in six cases in from three to twenty-four hours, in seven cases in from twenty-seven to forty-three hours and in seven cases in from fifty to one hundred hours. One case was omitted, as the complication of corneal ulcer—present on admission—delayed a return to normal. "One point deserves stressing. Rapidity of clinical cure does not seem to depend altogether on initial mildness of the condition. Of these twenty cases, four were severe; they cleared up in thirty-six, forty, forty, and thirty-seven hours, respectively, while all the seven cases that required fifty to one hundred hours were either mild or moderate."

"Of the twenty-five cases in the first three series, only thirteen showed clinical cure, five more relapsed after apparent clinical cure, and seven gave a poor response or none at all."

"No fine conclusions can be drawn from these results. So far as this series goes it would appear that none of the organisms met in ophthalmia neonatorum are completely resistant to penicillin. A rather surprising feature emerges with the three cases of inclusion blennorrhea present; theoretically no result would be expected, but in two cases there was an initial recovery, only to be followed by a relapse.

"The twenty-two cases treated with penicillin in a concentration of 2,500 units per cc. bear out the efficacy of the drug for the variety of causal organisms of ophthalmia. Treatment was successful in the five cases due to the gonococcus, the nine caused by staphylococci, the three in which staphylococci and bacilli were present, and in the two in which inclusion bodies were found; two further cases in which no organisms or inclusion bodies were present also responded to penicillin treatment. No relapses were observed in this series, and the only failure was a case in which no organisms were found in the smear and the culture showed diphtheroids.

"It would therefore appear that penicillin is effective over the whole range of causal organisms with the possible exception of diphtheroids—though even here two cases responded to penicillin in a concentration of 1,000 and 1,500 units, respectively, and a third case showed a partial response to penicillin (1,500 units per cc.) . . . Three of the seven cases treated with penicillin in a concentration of 2,500 units and requiring treatment for more than fifty hours showed diphtheroids—one of them in association with staphylococcus albus. In no case in which diphtheroids were found was there a rapid clinical cure."

"Five cases among the first twenty-five were treated with penicillin after a poor or protracted response to sulfonamides. Three of these were cases of gonococcal ophthalmia and responded well to penicillin, used in concentrations of 500, 1,000 and 1,500 units, respectively. In the fourth case Staphylococcus aureus, and in a fifth diphtheroids, were present; in both these cases there was a satisfactory response to penicillin in a concentration of 1,500 units per cc. Initially the first case had been treated by sulfathiazole for twelve days, and the four others by sulfamezathine for five and one-half, twelve, five and one-half, and twenty-three days, respectively. Clinical cure by penicillin took place in three, four, two, and three days, respectively, in the first four cases and in eighteen hours in the fifth case.

"Method of treatment—On admission the infant's eyes are irrigated with half-normal saline at room temperature and one drop of penicillin is instilled. Irrigation is also carried out before each further instillation of penicillin so long as there is any discharge. With penicillin in a concentration of 2,500 units per cc. irrigation is generally not necessary after six hours. Penicillin is continued for forty-eight hours after apparent clinical cure, at two-hourly intervals during the day and three-hourly at night. The drug is well tolerated by the infant's eye. Occasionally a mild transitory flushing of the conjunctiva is observed."

COMMENT

This investigation and method of treatment with penicillin of ophthalmia neonatorum is quite interesting. It reveals a remedy which is new and now available and also one which may be used without fear of injurious effects to the eye.

State Board of Health

Felix J. Underwood, M.D.

STATE FEVER THERAPY UNIT FOR NEUROSYPHILIS

by

A. L. GRAY, M.D., Director

Division of Preventable Disease Control

The State Fever Therapy Unit, a project of the Mississippi State Hospital in collaboration with the Mississippi State Board of Health, has been organized for the purpose of treating early neurosyphilis, thereby preventing the serious manifestations from occurring which may eventually require commitment to an institution for the insane. The unit is located at the Brookhaven Public Health Treatment Center, Brookhaven, Mississippi, and is so arranged that there will be four six-bed wards to accomodate both colored and white patients, male and female. In direct connection with the patient wards are six fever therapy rooms, fully equipped with the latest type of cabinets. The personnel will consist of the medical director and a complete staff of specially trained nurse technicians and staff nurses.

The county health officers are charged by law with the responsibility of referring patients from both public clinics and private physicians. Every effort will be made by the staff of the State Fever Therapy Unit to coöperate fully with county health officers and private physicians by rendering consultation service and by administering fever-chemotherapy to those patients who fulfill the requirements for admission. It is recognized that patients with asymptomatic neurosyphilis with type III spinal fluid are prone to develop the more serious manifestations of neurosyphilis, particularly paresis. Therefore, at the beginning, it is planned to select this group of patients for treatment, fulfilling the stipulated purpose of the State Fever Therapy Unit as set up by law. The present limited facilities will not make it possible to extend such therapy beyond this group, even though there are other types which might doubtless benefit from fever-chemotherapy. The ultimate aim of the program is to bring under control the neurosyphilis problem in Mississippi, which can be achieved only through the combined efforts and coöperation of health officers, practicing physicians, and others responsible for the conduct of this program.

Dr. H. Worley Kendell of the United States Public Health Service has been appointed medical director of the Chicago Intensive Treatment Center. Dr. Kendell is well qualified for the task confronting him and his staff and is in fact one of the country's outstanding authorities on fever therapy. A graduate of the University of Cincinnati medical school, he served his internship at Miami Valley Hospital, Dayton, Ohio, where he was also resident physician in pathology and did research work in fever therapy. Later he was associate director of the Kettering Institute for Medical Research. Dr. Kendell also served as director of the department of physical medicine at the Miami Valley Hospital. He has contributed numerous articles to medical journals both in this country and abroad.

The establishment of a State Fever Therapy Unit for Mississippi is a real advance in the control of neurosyphilis and should reduce considerably the number of cases which usually develop mental and paralytic symptoms and thus become permanent public charges at great expense to the state.

* * * * *

Mississippi's Enrichment Program

The Enrichment Acts, passed by the 1944 session of the Mississippi Legislature, became effective on February 1, 1945. This legislation requires that all white flour and bread and all degerminated corn meal and grits sold in the state must be enriched. It does not apply to whole wheat flour or home ground meal. A similar act requires that all oleomargarine must be fortified with Vitamin A.

The Mississippi State Board of Health, which is designated as the enforcement agency for the enrichment program, has allowed an additional six months after February 1 for the corn millers to secure necessary equipment and for the merchants to clear their stocks of the non-enriched products. The mills and the wholesale and retail merchants have given their whole-hearted coöperation in this program. As a result, the major part of the flour, bread, degerminated meal and grits being sold in Mississippi is already enriched; all of the oleomargarine has added Vitamin A. Complete compliance is expected well before the final strict enforcement date of September 1, 1945.

"Enrichment," points out Miss Mary Stansel, nutritionist, "means that that part of the vitamins and minerals lost in the milling processes have been put back into the wheat and corn. Enriched products taste just the same, look just the same and cook just the same as the non-enriched. The only difference—and it is a big one—is that the enriched products supply more of the nutrients needed for good health. The enrichment program will no doubt mean a substantial decrease in the incidence of pellagra and certain deficiency diseases. The enrichment of white flour and bread with thiamine, riboflavin, niacin and iron, and the enrichment of degerminated corn meal and grits with thiamine, niacin, and iron is a sound, practical and inexpensive way to achieve better nutrition and thus better health for the people of Mississippi."

"Bread enrichment should be continued," states an editorial in the **Journal of the American Medical Association** (January 20, 1945), in commenting upon this wartime measure which brought compulsory enrichment on a nation-wide scale. Following the emergency the problem reverts to the individual states, many of which have already passed legislation to insure continuance of these benefits to the nutritional standard of the people. "The enrichment of flour and bread is considered particularly desirable," points out the editorial, "because these foods are consumed daily in significant amounts by practically every one . . . "The effect of the widespread increase in consumption of these enriching substances on the nation's nutrition as a result of mandatory enrichment of all white bread and rolls is difficult to measure accurately at this time. All methods of appraisal, however, indicate a definitely beneficial influence . . .

"The benefits which accrue to the vastly greater number of individuals suffering from milder chronic degrees of deficiency states, in many cases unrecognized or attributed to other causes, can probably be considered the greatest contribution of enrichment. An improvement in the general health and well being and an increased efficiency in the population as a whole may be anticipated, since carefully controlled experimental groups have shown measurable benefits as a result of dietary increases of enrichment materials to enrichment levels."

The enrichment program has the endorsement of the Food and Nutrition Board of the National Research Council and the Council on Foods and nutrition of the American Medical Association, the American Public Health Association, and others, who appreciate the important contribution it has made to health and efficiency.

* * * * *

Mississippi Needs More Hospital Maternity Beds

In recent weeks the Division of Maternal and Child Health of the Mississippi State Board of Health has attempted to determine the total number of maternity beds available in Mississippi and the total needed. Dr. Virginia Howard, director of the Maternal and Child Health Division, has estimated the state's needs of hospital maternity beds at 1,600; whereas there exists at the present time only about 600. These are distributed as follows:

	White	Colored
Delta section	95	38
Bluff section	60	16
Coastal section	43	14
Northeast section	202	31
South central section	125	31

The increased number of hospital deliveries during the past two years seems a trend which will continue and is one which will have a profoundly beneficial effect on maternal health in Mississippi. As a result many hospitals in Mississippi have become interested in adding to their maternity facilities, making them more adequate to serve current needs.

Attention is again called to the fact that in 1943 the state had the lowest white maternal death rate in its history—2.3 per 1000. However, the Negro maternal death rate for 1943 was 5.3, the same as that for white eight years ago. It is believed that good hospital maternity facilities together with good obstetric care will make it possible with a few years to reduce these rates substantially. In the past five years Mississippi has lost 1400 women through deaths due to childbirth. Twenty maternity beds for every 25,000 population in the state would go a long way toward insuring proper hospitalization and care for every mother at time of delivery.

Mississippi Emergency Maternal and Infant Care Program Completes Second Year

Through the assistance of 786 physicians and 117 Mississippi hospitals, the Mississippi Emergency Maternal and Infant Care Program has given help to more than 16,000 wives and infants of enlisted men now serving in the armed forces. According to Dr. Virginia Howard, director of the Mississippi program, every maternity case has received medical services at the time of delivery, with more than two-thirds of all cases being hospitalized at time of delivery.

The program has not only boosted morale among the men in the armed forces in knowing that good care was provided their wives and infants; it has also proved a stimulus to hospitals providing maternity services to enlarge and improve their activities. Many of the young mothers have, under this program, had their first babies, and they will have been taught to seek the same safeguards in any subsequent pregnancies which they were offorded under EMIC. For the contribution which has been made to improved maternal and child health, appreciation is due the physician, the hospital, the nurse and the public health worker who assisted in the program.

* * * * *

One-Day Postgraduate Course in Pediatrics and Obstetrics

Physicians were most enthusiastic in regard to the five one-day postgraduate courses which were recently held in Mississippi through the coöperation of Tulane University School of Medicine. From all the comments which came in following these one-day courses, the physicians of the state consider them quite worth while and have expressed a desire for more. Consequently, an effort is being made to repeat these courses, holding them in five other parts of the state in the early fall. The earlier courses were held in Jackson, Hattiesburg, Tupelo, Greenwood, and Meridian, with Drs. Ralph Platou and George Mayer as lecturers.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	Apr. 1945	Apr 1944	Apr-5 yr. avg.
Acute poliomyelitis	2	2	2.4
Bacillary dysentery	544	482	440.8
Dengue	0	0	.8
Diphtheria	29	11	26.0
Influenza	3223	3834	3450 8
Measles	2200	3865	3556.6
Meningococcus meningitis	20	22	29.8
Other forms meningitis	0	12	5.4
Pellagra	204	261	286.2
Pneumonia	1220	1510	1356.6
Pulmonary tuberculosis	107	117	135 8
Scarlet fever	49	16	42.6
Smallpox	0	0	2.2
Tularemia	7	15	96.0
Typhoid fever	5	5	7.0
Typhus fever	10	6	4.6
Undulant fever	7	5	3.8
Whooping cough	896	1458	1233.0

WARREN-TEED
PEKTAMALT
(Pectin and Kaolin with Malt Extract)
ALCOHOL 7%
COLUMBUS 8, OHIO

PECTIN for detoxification — KAOLIN for adsorption — MALT extract for energy and flavor — *PEKTAMALT* is usually the only medication needed for speedy control of diarrhea, dysentery and colitis. *Its high pectin content — 10 grs. per fluidounce — provides an effective dosage.*

Here is a quick review of Pektamalt's proven clinical advantages: *Quick Action* — a large proportion of the infecting intestinal bacteria destroyed within 24 hours. *Quick Relief* — since Pektamalt's coating of the gastro-intestinal mucosa gives speedy relief from the irritating toxic by-products of pathogenic bacterial growth. *Palatable* — flavor acceptable to both children and adults. *Non-Toxic* — Pektamalt can be prescribed safely in massive dosage without rigid control and frequent checks. *Universal* — even infants can be treated safely and effectively with Pektamalt in the milk or milk formula.

Pektamalt is safe, reliable — prescribe it as your basic medication for diarrhea, dysentery, colitis.

Each fluidounce of Pektamalt contains:

Pectin	10 grs.
Kaolin	100 grs.
Alcohol	7 %

In a malt-flavored base
Supplied in 10 oz. and 4 oz. bottles

WARREN-TEED

Medicaments of Exacting Quality Since 1920

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

BY ANY TEST
Pharmaceuticals

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Doctors, Democrats and Demagogues

J. A. RAYBURN, M.D.
Pontotoc, Miss.

I HAVE SELECTED as my subject "Doctors, Democrats and Demagogues," because of the tremendous impact of each group, separately and collectively, upon our social, economic, and political structure, and because they are a part of the fabric of scientific medicine.

DOCTORS

From time immemorial doctors have played an important part in the lives of people. Primitive people, with their unorganized society, have depended much on their medicine men. They not only imbibed their concoctions when they were sick, but sought their advice on all matters pertaining to their own welfare even when they were well. Doctors have been in the vanguard of all organized and progressive governments, and sometimes have even carried the torch of enlightenment. They have kept pace with whatever progress humanity has made. Ethical practices and conduct have been observed with a reasonable degree of fidelity, in keeping with the society they represent and serve. They seem to be an indispensable part of society on any level, in war or in peace.

Within the medical profession it has been our great good fortune to know men of the highest ideals and culture, and in general, to find in the profession a great friendliness. Our common interests bind us together, and although we frequently disagree, there is today, as there has been throughout the centuries, in Osler's words, a "remarkable solidarity."

Great and indispensable as the medical art is, it is something more than skill that constitutes the genius of the true physician. It is love of humanity, a desire to do the utmost, at any cost, to alleviate human suffering and restore the afflicted to wholeness of being.

A doctor is not a superman or magician. He is a human being, with human sympathy and understanding, working within the limits of scientific knowledge. But he achieves victories today which, only a few generations ago, would have been called miraculous.

With the help of modern scientific equipment, with a fund of coördinated medical and surgical knowledge undreamed of even by our grandfathers, doctors can prevent diseases that were once supposed to be the natural heritage of mankind. They can cure diseases which were once unqualifiedly labeled "fatal."

The service that medical science renders is often obscure and unnoticed. It receives little of the world's applause and oftentimes too little compensation. The unwritten story of what transpires in the hospitals and frequently in the homes of humble and neglected folk is one that has never been adequately told. There is no form of philanthropy of which we have knowledge comparable to that which is repeatedly exhibited by the healing profession. Doctors and nurses render a service of such high order that we find it impossible rightly to appraise it.

Charity is an eminent virtue of the medical profession. Show me the garret or the cellar which its messengers do not penetrate; tell me the pestilence which its heroes have not braved in their errands of mercy; name the practitioner who is not ready to be the servant of servants in the cause of humanity, and whose footsteps are found to every haunt of stricken humanity.

Rightly conceived and practiced, it is a ministry that deals with the whole man, body, mind and spirit. We have known physicians whose presence in the sick room meant as much if not more than all that they prescribed. In their approach to the sick they imparted both confidence and renewal. They penetrated the mind of the patient and dispelled both fear and anxiety. Their word of encouragement meant more than their medicine. They were restorers of the soul.

The physician's ambition has ever been to relieve and prevent suffering and illness and the unhappiness that goes with such conditions. By precept and example it has taught the neophyte that it is his obligation to sacri-

---

*This paper was originally prepared to be read before the Section on Surgery at the Mississippi Medical Association in May, but due to wartime transportation difficulties the scientific sessions were pretermitted.

fice his comfort, yea even his health, if in so doing, he could alleviate the suffering of others. No group, and I do not except the clergy, has held higher the standards of morality. No group has striven more earnestly for the advancement of science.

The letters "M.D." are a symbol of civilization's achievements in the protection of humanity.

What is it that has enabled the men of medicine to accomplish so much in blessing humankind by the alleviation of physical woes? The question may well be answered in the language of an ancient sage, who once wrote these immortal words: "Interest does not bind men together: interest separates men. There is but one thing that can effectively bind people, and that is a common devotion." There are a number of loyalties in life—those to a nation, to a college, to the community in which we dwell, to our family, and to our friends—"All of which are somewhat akin; yet there may be something of personal interest, prejudice, or defense in these particular reactions which makes them not wholly unselfish." Devotion, on the other hand, may be likened unto that charity so beautifully delineated by the Man of Tarsus—*for devotion suffereth long, and is kind; devotion envieth not.*

Devotion is the doctor's consecration to his task. It is a sort of blood kinship with these who have been led into the Temple of Pain.

This is the true spirit of medicine. It is this that casts out the devils of disease. Devotion, wedded to true science, has won for many a tortured soul freedom from agonies unspeakable, and restoration to the hearth of health.

My fellow physicians, we are servants of humanity and have a humanitarian service to perform which can be accomplished by organization, coöperation, education, devotion and freedom.

DEMOCRATS

Democrats have been the free thinkers of the world, and whether they live in a society of free thinking people, an autocratic or totalitarian state, most of the philosophy which has guided humanity towards a higher plane of living has been furnished by true democrats.

It is now 168 years since the brilliant pen of Thomas Jefferson gave us three brave dreams. They were dreams that shook the complacency of a world of kings and foreign rulers, that were to light up the tired and broken hearts of men everywhere—"that all men are created equal, that they are endowed by their Creator with certain unalienable rights, that among these are life, liberty and the pursuit of happiness." I wonder if in all written language there is a phrase that matches those last seven words. They cover man's fondest hopes since the mist slowly lifted a million years ago and human beings began to ponder on the meaning of existence.

They express simple dreams. They want only that man shall have his own life to do with as he chooses; they ask that man shall have personal liberty; and that he shall have the right to pursue such happiness as he wishes. They were put down on imperishable parchment and signed by fifty-six valiant men at a moment when it was not easy for common man to have for himself or his family any of these three things. Life was cheap and could be all but bought and sold by the whims of distant rulers. Men were free neither to think nor to talk nor to act as they chose. And they could follow their stars of happiness at great risk and great cost.

These fifty-six sorely-tried men, and their countrymen who dreamed with them, pledged their all in order to build a new world based on an untried and imaginative theory called democracy.

It was vague then, and it is vague now after all these years. And it will always be vague because it is built in men's hearts and cemented by men's dreams. But this gives it a purpose and strength beyond measurement.

To us our democracy means the American way of life. After analyzing the American way, I find it embodies this principle: It is the free way of life. The individual is allowed to live in accordance with the dictates of his own conscience. He is free to aspire, to protest, to criticize, and to follow any vision in his heart or mind which leaves his neighbor equally free. In America a person may talk his way to the truth of things, realizing that although the governmental organization is the agency for the general welfare, it leaves full leeway for the talented person to attain the highest development of his talents commensurate with neighborly, social conduct. He is assured this free spirit by the Bill of Rights.

The American way permits living by the rule of reason. It enables men to put into application mankind's most important heritage—intelligence. This aspect promotes fair government as contrasted with the oppression and suppression characteristic of autocratic governments.

It is the friendly way of life. It takes into consideration the rights and opinions of minorities, the underprivileged, and the least favored. It places restrictions upon the selfishness of the mass and class, so that they do not trample on the privileges of others. An individual at the very bottom of the scale can climb to the top—for success is judged in terms of growth and happiness.

It is the peaceful and coöperative way of life. It emphasizes service for the common good. Discrepancies are settled through enlightened discussions, elections, or through court procedures. The use of armed force is a means of last resort.

The American way is the fair way of life. The democratic principle requires each person to recognize the equal rights of others. Here, individuals in determining the condition of their own lives, whether political, economic, religious, or social, are guided by the thought that their rights are everywhere limited by the equally valid rights of their neighbors; that their neighbors are always to be treated as human beings, as ends in themselves, never as mere instruments.

Finally, it is the democratic way of life based on human brotherhood and the Golden Rule. In America attemps are made to bring the benefits of civilization to the common man, to give him a high standard of living, educational opportunities, and protection for his health and safety. In a word, the American way epitomizes Christian philosophy.

In verity, I would not change our democracy with the life it entails for any other system in the world. But if our democracy is to mean as much to us tomorrow and a thousand morrows hence, we must fully understand it and fulfill our obligations. We must be educated in civic matters. We must obey our leaders, yet assert the responsibility of advising them. We must play fairly, yet be mindful of every opportunity for free action and the exercise of initiative, for then only will the success of democracy be assured and insured forever. Then only will we continue to breathe every day a fresh delight in its generous attitude toward life, and the inspiration it affords its citizenry.

DEMAGOGUES

Demagogues flourish in all types of society, but they are in their zenith of glory in a democracy where they are allowed to expostulate freely and often. Even though they sometimes become nauseating to certain sections of society, they are possibly a benevolent factor in a democracy, because there are those of us who might become super important factors, and altogether too cocksure, if it were not for the flambouyant glamour of the demagogue.

It was Dr. Osler who said to a group of students entering Johns Hopkins: "If you look forward to a lucrative practice, go home. If you enter medicine in exactly the same spirit that the missionary leaves for his foreign field, that is, believing that in medicine you best can use your talents for your fellow men, we welcome you." In this day and age it is too much to expect doctors to have so pure a missionary spirit as to be totally indifferent to money and the comforts and security it can buy. But it may still be assumed that a doctor who is worthy of the name will find his greatest reward in the satisfactions he derives from pursuing a science and from improving the lot of humanity. The fact that many doctors have placed these satisfactions first justifies the conclusion that this is not an impossible human ideal.

The majority of the members of the medical profession are no doubt doing all that they can to raise the standards of medical practice.

The national phantasy of socialized medicine is to my mind a dream of the bleating heart of the demagogue. Those of us who believe in a free and strong America must be on guard. Put agriculture, industry, and the professions in a strait jacket of regimentation and bureaucratic control, and the only possible result would be, we should lose the way of life which has given the people of this nation more of the worthwhile things than have been attained by the people of any other land.

What do we do about it? We cannot sit idly by and watch this system disappear before our eyes. We cannot permit the inefficient and the incompetent, the crystal gazers and the experimenters to ruin this America of opportunity for all of us.

In a republic all men and all women must be granted equal rights. If we do not adhere to this great fundamental principle of Americanism, we are not worthy of the proud privilege of being American citizens.

There should be equality in the administration of the law; there must be justice in the distribution of the tax burdens. A square deal to all must be the cornerstone upon which we build a continuous progressing America.

To those who have had experience with the muddling of government, the demand for more of it in medicine in the name of efficiency has an ironically humorous note. What city has not had scandals in its health department? Some state and county health departments are little better. It is said that one Southern state has had twenty-two state health officers in twenty-three years. Health department officials may be appointed for their merits but are often selected for political "availability." It is said that in one large city recently a dying man was turned away from a city hospital by a receiving nurse because he was not accompanied by a policeman! And the sick man happened to be an employee of the very hospital where he applied for emergency treatment. A tragic paradox indeed!

How dubious then the prospect of turning over all care of the sick to government.

Future medical progress would practically stop under socialized medicine, for, there being no competition, doctors would not strive to improve their service. Doctors would no longer be masters of their talents, but would have sold or bartered them to an unprofessional group of politicians. Many of our future great surgeons would be deviated from the hard road of a medical education to more promising lines. For the future of progressive medicine and for the welfare of the American people as a whole, may the doctors continue as in the past.

Let us all become true sentinels in the watchtowers of a free and untrammeled America. Let us see to it that the flag of personal initiative shall not be dragged down from the mast of private enterprise by the dirty hands of the disciples of Karl Marx, and in its stead run up the red flag of socialized medicine and state socialism.

We hope that we can persuade the general public to support us in our resistance to Senator Wagner's new law which would place us completely under the control of the federal government. We say free evolutionary medicine not revolutionary bureaucratic medicine.

We need men and women, lots of them, who will stand up on their two feet before the world and say, "We do not intend to preside at the liquidation of the American way of life. We are going to maintain our American standards of living under representative, democratic principles, free from government domination."

You may well ask, Why am I mixing these three segments of society in a paper to be read before a group of professional men? My answer is, that the three segments are a mixture of society, that the noble profession of medicine is interspersed with the medical demagogue, who considers medicine as a means to his own ignoble purposes. I am glad that there are so few such members within the profession.

All doctors have not reached a state of idealism in their profession. But the majority of them are constantly striving to improve in quality and scope. I do not believe that socialized medicine is the answer. Give them constructive criticism and light, and they will find the way, because I believe in this country most of them belong to that class of democrats which has helped to guide humanity toward a higher plane.

Our salvation lies in the joined hand, the fused spirit, and the consecrated heart—to reject the false, examine the doubtful and accept the true. Doctors and democracy will stand the test.

Where no council is, the people fall: but
in the multitude of counselors there is safety.

—SOLOMON (1000 B.C.)

Acromioclavicular Injuries*

JOHN D. DYER, M.D.

Houston, Miss.

SEPARATION OF the acromioclavicular joint occurs often enough for it to be worthy of our consideration. About two years ago there was an article on this subject in the *Journal of Surgery, Gynecology and Obstetrics.* It was written by Dr. Boardman M. Bosworth and described a new technique for repairing these injuries. At that time he only reported four cases. Since reading Dr. Bosworth's article, we have repaired four cases of acromioclavicular separation by the technique which he described.

Disability from acromioclavicular separation is marked when there is coincidental tearing of the coracoclavicular ligament. This ligament is very strong and if it were not present, there would be many more acromioclavicular separations. There is only slight movement in this joint, but the fibers of this ligament are so placed that they reinforce it regardless of what direction it moves.

In the past there have been numerous major operative procedures used for repairing these separations. Fascia, silk and wire have probably been used more than any other materials. All required general anesthesia and major orthopedic surgery which was technically difficult.

The method described by Bosworth and which has been used in the cases being reported now consists of passing a single vitallium screw through the clavicle into the coracoid under local anesthesia. The operation is done with the patient sitting upright in a chair. A small incision is made over the outer third of the clavicle, parallel with the clavicle, and about one and one-half inches proximal to its outer end. The upper cortex of the clavicle is drilled through with a 3/16 drill. Novacain is then injected and the lower cortex is drilled through. Through this hole more novacain is injected into the torn fibers of the coracoclavicular ligament and into the periosteum of the coracoid. The dislocation is now reduced and held in position by an assistant who supports the arm and depresses the tip of the clavicle.

At this stage of the procedure it is well to check the position with x-ray. A hole is then started with a small drill in the upper cortex of the coracoid process. A vitallium screw is then placed through the clavicle into the coracoid process. This screw will cut its own way through the coracoid process without previous drilling.

The hole in the clavicle is made a little larger than the screw to allow free movement of the screw within the clavicle which allows limited motion of the acromioclavicular joint in all directions. The reduction must be maintained until the screw is drilled through the coracoid and the screw should penetrate both cortices of the coracoid.

This operation is very simple but should be done in a hospital. No open bone surgery should be attempted in an office because of difficulty in carrying out a sterile technique. It is probably best to keep these patients in the hospital overnight, but this is not absolutely necessary. No sling or support is used, and the patient is advised to begin active use of the arm at once. However, lifting and pulling is not permitted for eight weeks.

The following cases are reported:

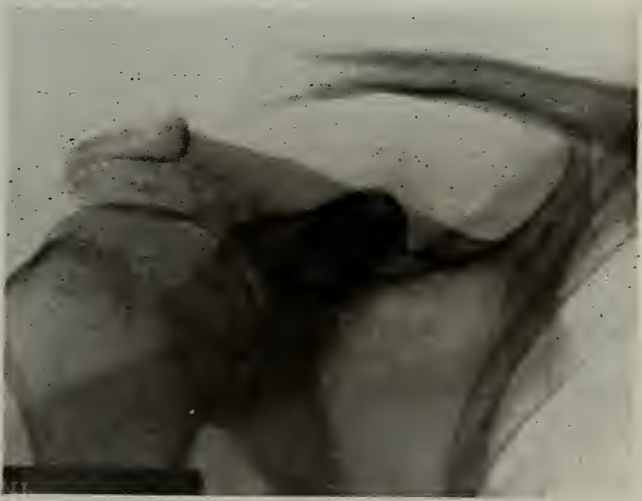


Fig. 1.—J. M., age 75. X-ray before operation.

Case No. 1. J. M., age 75—Injured in an automobile wreck. Was seen a few hours after injury. Was stuporous from a head injury,

---

*Read at the Northeast Mississippi Thirteen Counties Medical Society, Baldwyn, Miss., December, 1944.

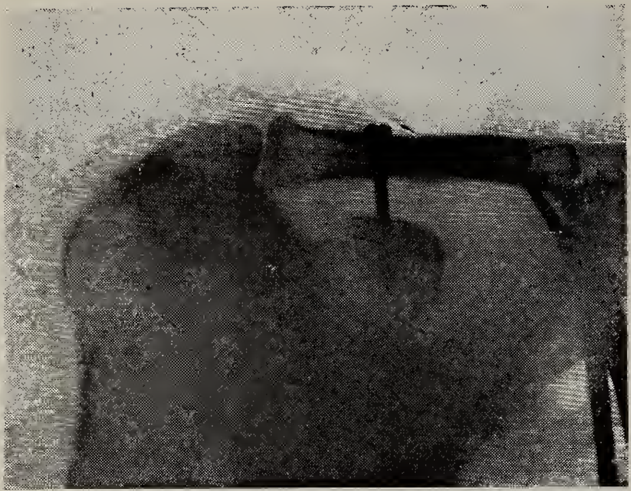


Fig. 1a.—Same patient after operation.

but it was noted that the outer end of the right clavicle projected above the acromian process of the scapula. Diagnosis of acromioclavicular separation was confirmed by x-ray examination. Since there was an associated head injury, the acromioclavicular separation was not repaired until three days after admission. The repair was carried out in the manner described. There was moderate pain in the shoulder for the first two days following the repair. After this, there was hardly any pain. At two weeks there was some drainage from the incision, and it was thought that an osteomyelitis might be developing. However the draining stopped after one week and the incision healed completely. At two months the patient had normal use of the shoulder.

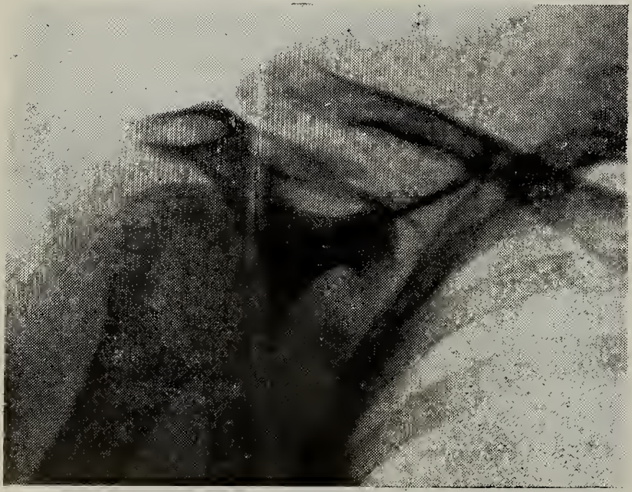


Fig. 2.—J. S., age 34. X-ray before operation.

Case No. 2: J. S., Age 34—Injured in an automobile wreck. Was seen about four hours after injury. Patient was complaining of severe pain in right shoulder. Examination revealed an acromioclavicular separation. Repair was done on the following morning. Recovery was uneventful. At six months there was normal use of the shoulder.

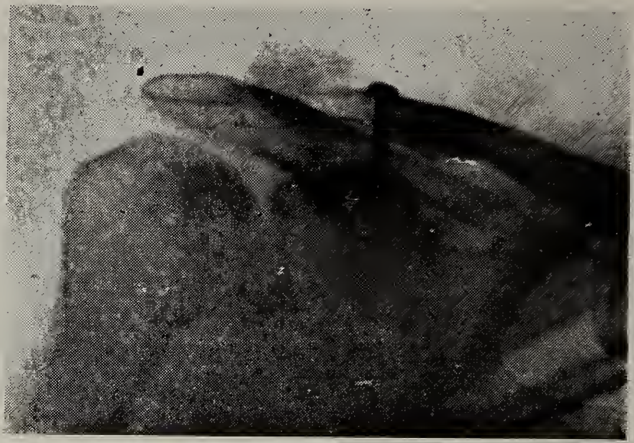


Fig. 2a.—Same patient as in Fig. 2 after operation.

Case No. 3: E. W., age 15—Fell from bicycle on right shoulder three days before entering hospital. Examination revealed right acromioclavicular separation. Repair was done about two hours after admission. Recovery was uneventful. At four months function of shoulder was normal.

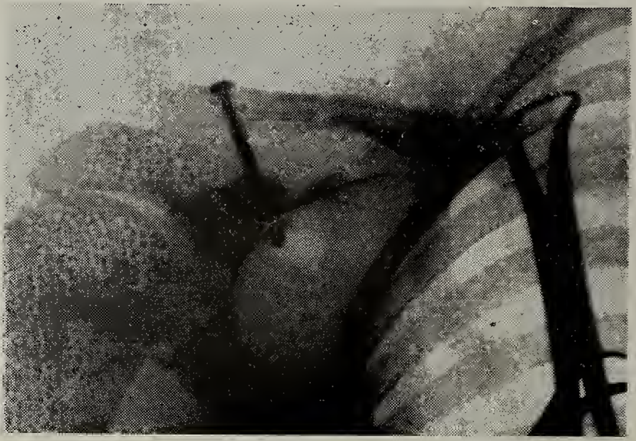


Fig. 3—E. W., age 15. After reduction with screw.

Case No. 4: G. B., age 17—Injured left shoulder while wrestling. On physical examination there appeared to be a typical acromioclavicular separation. However, x-rays showed a fracture of the outer extremity of the clavicle. Since the clavicle was riding high, it was evident that the coracoclavicular ligament had been torn and that it could be treated as an acromioclavicular separation. The only difference in the procedure was that the fractured ends of the clavicle had to be manipulated into position before insertion of the vitallium screw. At six months the function of the shoulder was normal.

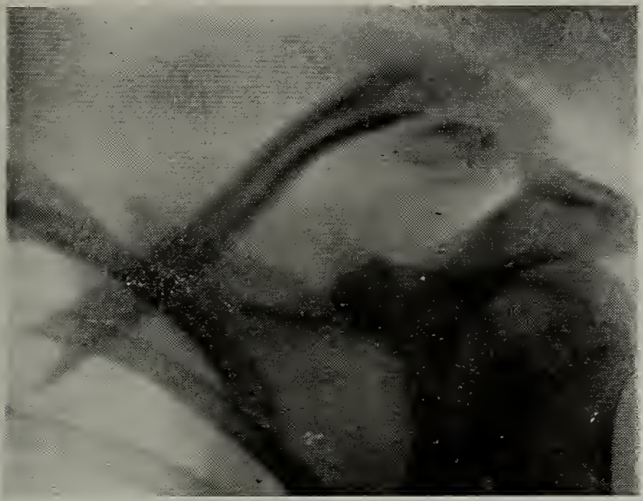


Fig. 4.—G. B., age 17. Before operation.

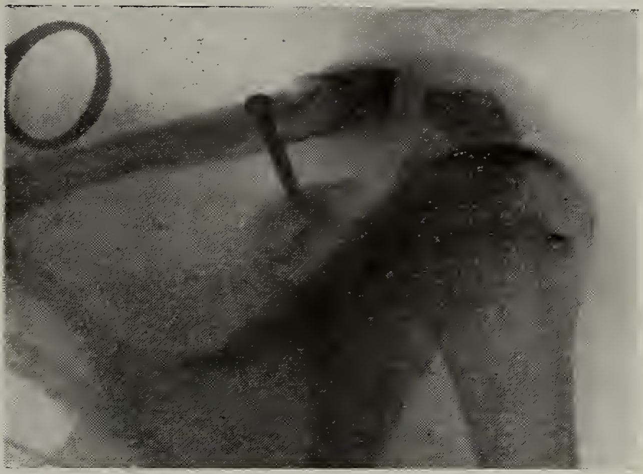


Fig. 4a.—After reduction.

THE MISSISSIPPI DOCTOR

David E. Guyton
Blue Mountain, Miss.

The Mississippi Doctor!
Long may it live to lead,
With courage for its watchword,
With candor for its creed.

Despite its small beginning,
It towers high today,
Respected, read and quoted,
With sovereign right to say.

Appearing in its pages,
Are features by the best
Of surgeons and physicians,
Revered by all the rest.

All phases of the practice,
Approved by tests of years
And every sane adventure
Of sagest pioneers,

These are the sum and substance
This journal joys to bring
And that is just the reason
Its readers rise to sing:

"The Mississippi Doctor!
Long may it live to lead,
With courage for its watchword,
With candor for its creed.

"And may God crown its efforts
With service most sublime
And lengthen out its mission
Until the end of time."

Rural Health*

VERNON B. HARRISON, M.D.**
University, Miss.

IN REPORTING ON the public health status of a community, it is customary in professional circles, to consider the subject from the standpoint of the four P's; namely, the population, the problem, the program, and the progress. In the time at my disposal, both for preparation and presentation, I can do no more than generalize on these four points as they pertain to the rural health status of the ten counties represented today in this Area Rural Life Conference.

THE POPULATION

The total population of the ten counties in this Area Rural Life Conference is approximately one quarter million people, about one-eighth of that of the state of Mississippi. This population is composed of about half and half white and colored people, with a range of white to colored ratio of from three to one some counties, to a ratio of one to three in other counties. The population composition is important in any public health problem because of the significance of racial factors in disease, as well as its sociological and economic implications.

The age-group distribution of a population influences its public health problems. Mississippi is rapidly becoming a state of children and old people. This is due to the fact that our young people are migrating from the state to seek better economic and sociologic opportunities elsewhere. When the middle-age group is cut out of a given population it throws the public health problems of the younger and older age-groups into greater prominence. And, with the possible exception of the venereal diseases, tuberculosis and conditions associated with childbearing, the younger and older age-groups contain the most public health problems; for example, the acute communicable diseases, nutritional deficiency and developmental diseases, and the degenerative diseases and senescent states.

The social and economic status of a population also influences the state of its public health. It is a well recognized fact that where the sociologic and economic well-being of a population is high, its public health problems are minimal. Poverty and near poverty, if not the mothers, are, at least, the step-mothers of public health problems. I think that it is fair to state that the general social and economic level of the average rural family in this area is definitely below the average for the nation, although not nearly so low as that of some sections of so-called enlightened Northern cities. Nonetheless, we must recognize the facts for what they are.

Lastly, there is a direct correlation between the educational level of the population and its public health problems. The Scandinavian countries are a good example of this point. That is, where the general educational level is high, the public health level is also high, and *vice versa.* Here, again, we must admit that the general educational standard of our population is woefully deficient in certain particulars.

THE PROBLEM

The public health problems of any community can be classified into three divisions; namely, disease prevention, health maintenance, and health promotion. Of these three problems, health maintenance is the oldest in concept and most immediate in action. Fundamentally, it means repairing the "human machine" when it "breaks down" and getting it back into operation as soon as possible. Naturally and logically, the responsibility for this service rests with the medical profession and its allied services; such as, the dental, nursing, and pharmaceutical professions and the hospital systems.

What is the health maintenance problem in this area? Serving a quarter million people in this area are 93 physicians who are not doing full-time public health work or teaching in the medical school. This is a ratio of one physician to 2700 people. By comparison the ratios of physicians to population in Mississippi as a whole and in the nation as a whole are, respectively, 1 to 1640 and 1 to 800. If one accepts the standard of one physician per 1000 population as satisfactory, then this area is short 156 physicians. I have no readily available data on the dentist and nursing situation,but I suspect on fairly good general evidence that in those fields the situation is far worse.

---

*Read before the Area Rural Life Conference, Oxford, June 8, 1945.

**Professor of Bacteriology and Preventive Medicine, University of Mississippi.

The hospital aspect of the problem follows, in a general sense, that of the physicians. The ten counties contain six hospitals located in four communities possessing a total of 173 beds and admitting a total of 5628 patients last year. This is an average of one bed for every 610 people, or a ratio of 1.43 beds per 1000 population. By comparison, the whole state has a ratio of 1.5 beds per 1000 population and the average for the whole nation was 3.3 beds per 1000 population. The six hospitals in question are small, general-service hospitals, privately owned, and with a semi-closed staff. Insofar as I am aware, there is only one specialist in the area. With the exception of the state subsidization of the private hospitals, there is no other provision in this area for the indigent or near-indigent sick.

The problem of disease prevention is a derivative or outgrowth of the health maintenance problem. It was only natural that the inherently high cost of health maintenance —both in respect to money and life—be relieved by attempting to remove the hazards which caused or hastened the "break down" in the "human machine." The responsibility for disease prevention should be shared jointly by the organized public health services and the allied medical profession. It is childish thinking to believe that the responsibility rests solely with one or the other of these two systems; in disease prevention these two services are not competitive but complementary.

Eight of the ten counties represented here today have a formal full-time health service. Yet, in every case two counties share a health officer. No doubt, this, as well as other staff problems, is due to the exigencies of the war. It goes without saying that the unorganized counties should have the benefit of a full-time public health service. The major public health problems appear to be venereal disease control, tuberculosis control, and maternal and child hygiene services. However, the formal organization of a county health department is, in itself, no assurance that a sound and efficient public health service will be forthcoming.

Lastly, health promotion is the newer concept of public health. Even at their best, health maintenance and disease prevention are negative and static, whereas health promotion is positive and dynamic. The objective of health promotion is to develop the greatest possible yield from the inherent potentialities of the human organism. To accomplish this one must apply methods of development, adaption and correction, as required. The responsibility for this service is broad, but fundamentally it must be divided between the medical profession, organized public health services and the educational systems.

THE PROGRAM

The program necessary for solution of the aforestated rural health problems might be summarized under four titles; namely, expanded medical service, organized public health service, health education, and improved general economic conditions. It might be truthfully stated that improved general economic conditions could almost single-handedly solve the whole problem.

The problem of adequate medical service is fundamentally one of economics. Under present conditions it is questionable if this area could support enough physicians to bring the ratio to one physician per 1000 population. Medicine, like any other business, is largely governed by the law of supply and demand. However, there are ways and means of improving the situation concomitantly with (not independently of) the general economic elevation of the population. In essence, this means the simultaneous creation and operation of a system of hospitalization and medical education for the state. In my opinion, a medical school program and a state hospital program are not independent alternative solutions to the problem, but rather the medical school program and the hospital program are complements of a single solution.

The public health program is so well established in the state that it might appear superfluous to dwell upon the point. However, it seems to me that two points need clarification. The first point is that the "house is no better than the material out of which it is built" and a public health program is no better than the quality of its personnel. In my humble opinion a health department should not be an asylum for professional misfits in the medical, nursing and engineering professions. Any county with a public health problem, regardless of its economic and political prominence or obscurity, is entitled to competent public health workers. It is the "backward" and "borderline" counties which have need of the most efficient and competent personnel, but all too often they are the ones which get the "second rate" workers. It is the second point is like unto the first; namely, if a county has a competent and efficient public health staff, that staff should be given a high degree of autonomy. During the last ten years there has been a growing tendency to centralize public health service in the state. There can be no argument with such bureaucratic methods where the field staff is inexperienced or incompetent, but with the right kind of a field staff, decentralized public health service is the superior service. The people in these ten counties should demand a public health program commensurate with their public health problems and not accept an inferior substitute.

As previously stated, education is the natural enemy of public health problems. However, the elevation in the general educational standards, while unquestionably beneficial, is in itself not sufficient; it must be supplemented by specialized health instruction. The term, "health education," is confused in the public's thinking. In the past it has been treated as a step-child by both our educational system and our public health services. Our schools have given it lip service and simultaneously violated its spirit, while our public health service has used it as a cloak for propaganda purposes. It is heartening to see a current concerted effort being made by the State Department of Education and the State Board of Health to organize this important field in public health.

Finally, an improved general economy is necessary for an improved public health, and *vice versa.* Pills and inspiring words can never substitute for food and shelter. Any measure which will increase the net family income will elevate its health status. This is, in essence, the purpose of the Rural Life Council, and it needs no further amplification at this point.

PROGRESS

It is too early to report any material progress in the solution of the rural health problems in this area. The greatest of all progress has been made by organized public health service, but much remains to be done. It appears that the state has been stirred by the crying needs in the field of medical service and there is an undercurrent trend toward a state hospital and medical educational system. There is a strong sentiment and an increased interest in the problem of health education. The joint action of the State Department of Education and the State Board of Health in this field is making gradual headway. Finally, the postwar planning and industrial program for Mississippi and the resurgent interest in the problems of agriculture all point to an improved regional economy.

Let us hope that our leaders will not become so engrossed in a single phase of the problem that they will lose their perspective for the overall picture. Let us not be guilty of not being able to see the forest for the trees.

American Red Cross chapters throughout the nation will be permitted to recruit blood donors for civilians under a program announced by National Chairman Basil O'Connor. The blood collected and the blood derivatives produced will be made available without cost to physicians, hospitals, clinics and patients. This civilian program is entirely separate from the Blood Donor Service operated by the American Red Cross for the armed forces, and the civilian program will be available to chapters through the five Red Cross area offices.

Familial Progressive Muscular Dystrophy*

IN THREE GENERATIONS LIVING IN THE SAME NEIGHBORHOOD

W. A. EVANS, M.D., and C. H. LOVE, M.D.
Aberdeen, Miss.

THE MOFFETT FAMILY

CASE ONE. E. C. M. Twelve-year-old, rosy-cheeked, bright-eyed boy. Superficially observed, appears to be well developed mentally and even physically.

When this boy was about seven years of age and in his second year at school, it was noticed that he could not get into the school bus unless he had the help of the driver. His mother had some idea of the meaning of this weakness from her observation of the disease in some of her brothers, her maternal uncles, and her maternal cousins. The weakness increased so rapidly that it became necessary for the boy to stop school. There was no pain or tenderness or fever or other constitutional reaction. The disease was most marked in the muscles of the lower legs. It presently affected the muscles of the upper legs, the back and the arms. Although the muscles were so weak that the boy could not step up, or climb, or run, or jump, or walk any long distance, they appeared to be larger than normal. In the course of time the feet developed a tendency to toe-in and to turn downward so that the boy stood pigeon-toed or on his toes. No other tendency to contractures or spasm was noted. The boy fell frequently, but it was a slumping-down that did not expose him to danger of fractures. He would get up and try again, not much harmed or discouraged from the fall.

Due to involvement of the muscles of the back he had a characteristic exaggerated lumbar posture. Appetite good, digestion good, functions of organs of thorax and abdomen not interfered with, vision good.

This boy was taken to clinics for examination twice.

He was examined by Dr. H. B. Boyd in Memphis for the Mississippi Crippled Children's Service in August, 1941. Dr. Boyd reported on August 29, 1941. "This child has a pseudo-hypertrophic muscular dystrophy. There is no orthopedic treatment. Has also been seen by Dr. Hamilton who is placing him on a high vitamin E diet. Has asked that the child return in thirty days."

Dr. R. A. Knight examined this boy under the same auspices at Tupelo, March 25, 1943, seventeen months later. He wrote Dr. Boozer at Amory, Mississippi: "Gradual progression of the syndrome. Gower's sign positive, some weakness in shoulder girdle. No treatment advised. Diagnosis, pseudo-hypertrophic dystrophy. To be seen at yearly intervals. There is gradual progression of the muscular disease and patient is now unable to arise from the floor and cannot lift his head from the bed. Obtained no benefit from vitamin E preparation. No treatment advised."

In January, 1945, the boy can hold his head up and can walk around somewhat both outdoors and indoors.

Case Two. Howard, now (January 1945) ten years old. Disease started when this boy was in his eighth year and in his second year at school. His difficulty in getting into the school bus called attention to the developing disease in this boy.

In this case there is no pseudo-hypertrophic feature. It is following the more typical course of progressive muscular dystrophy affecting about the same groups of muscles that were affected in the older boy. With that exception, what was said of the disease in the older boy applies. This one was not taken to any clinic and vitamin E pills were not tried on him. He is a ruddy-cheeked, well-nourished boy, bright and clear-eyed on superficial examination.

Case Three. Walter, nine years of age. In infancy this boy was noted as having very large intestines. There was constipation and much gas. For this condition the baby was taken to Dr. Williams in Aberdeen and Dr. Murfree in Amory. The condition was considered to be congenital. It has improved and at the present time causes little trouble, but is responsible for an abnormally large abdomen and some resultant lumbar lordosis. The boy is ruddy, well-nourished and apparently in good health.

He is now two years older than his brothers were when they developed symptoms of progressive muscular dystrophy. The parents think he will escape and they have had experience enough to qualify them as judges.

The fourth child, a girl, Dorothy Lou, aged seven years, is a healthy well-nourished child with no symptoms of progressive muscular dystrophy.

Case Four. Fifth child, a boy, Jerry, six years old. The disease is beginning to develop in this boy's lower legs, having started after his fifth birthday. As in the case with the second boy, the disease is not of the pseudo-hypertrophic type.

The sixth child, James Edward, four years old, child is entirely normal. None of the children developed symptoms at four years of age. There is no way to tell whether or not this boy will escape.

The seventh child, Carroll, thirty-two months old, as in the case with the sixth child, is bright-eyed and healthy in appearance and nothing indicates whether he will or will not escape progressive muscular dystrophy.

THE MEEK FAMILY

These are the children of Mr. Meek and his two wives who were sisters, named Carter. The first child was a son who died at seventeen years of age from progressive muscular dystrophy. The symptoms of this disease were recognized when the child was seventeen years of age. His disease was of the pseudo-hypertrophic type.

The second child, a daughter, remained in good health and became Mrs. Moffett, the mother of three affected and four unaffected children. After the death of the mother of these children, Mr. Meek married her older sister and she bore him four children.

The third, fourth and fifth children escaped.

The sixth child, a son who developed the disease at seven years of age, died at sixteen years of age.

THE TUBB FAMILY

The first, fourth, fifth, and seventh children escaped.

The second child, a son named Bennis, developed progressive muscular dystrophy of the pseudo-hypertrophic type when he was nine years of age. He died from pneumonia at sixteen years of age.

The third child, Winfred, developed recognized symptoms of the disease of the pseudo-hypertrophic type, at seven years of age. He died when twelve years old.

THE CARTER FAMILY

Of eleven children, the first ten escaped the disease. The eleventh child, a boy, Robert, developed recognized symptoms of progressive muscular dystrophy when seven years of age and died at twenty-five years of age of the disease.

THE PICKLE FAMILY

The first four children escaped. The first, a son, was born a deaf mute. He is now living and is about forty-five years old and in good health. He is married and has five children, three boys and two girls, all in good health and all normal as to speech and hearing.

The second child, a daughter, had two healthy children, a boy and a girl. She died six months ago, never developing any symptoms of progressive muscular dystrophy.

The third child, a daughter, May, was born a deaf mute, but otherwise is normal and healthy. She is married and has two children, a boy and girl, both healthy and normal as to speech and hearing.

The fifth child was a girl, Mamie. When Mamie was between five and seven years of age, the family noticed that on the way to and from school her schoolmates had to carry her books. The road to school crossed a hill and after a few months it became necessary for her to quit school because of her muscular weakness. Within two years she was confined to her room, her chair and her bed. Her progressive muscular dystrophy was of the atrophic type. The wasting of the muscles of her legs and trunk became extreme as the years went on. Her posture became of the lordosis-square-shoulder type because of her need to use auxiliary trunk chest, shoulder and neck muscles. She had no contractures, no muscle spasms, tonic or clonic, no pains, no tenderness, no sensory phenomena and no constitutional reactions.

Her death certificate gave as the cause of death, "Immediate, acute endocarditis; contributing, paralysis," age thirty-five years. Date: July 9, 1944.

We note that she suffered from the disorder for twenty-eight to thirty years. Her father is still living and is in good health at seventy-eight years of age. He has never had any symptoms of progressive muscular dystrophy.

So far as is known, none of his progenitors and none of his collateral relatives has ever had the disease. Mrs. Pickle was a Ray. After a life of reasonably good health, she died about five years ago when sixty-six years of age. The death certificate gave the cause of death as "pellagra." One of us (W. A. E.) saw her in this fulminant rapidly fatal attack of pellagra. She never had any symptoms of progressive muscular dystrophy. There is no tradition of any case of muscular dystrophy in any member of the Ray or Pickle families and the families have lived for several generations in this neighborhood.

Family Relations

In the case of the Moffett children, a superficial investigation of the family connections for five generations results as follows:

There is no family tradition of progressive muscular dystrophy in the Malone or Phillips families or any of their forbears or relations. This was the first generation developing the disease and the study covered superficially generations back of it.

In this generation, one case developed and that is the youngest of seven children. In this generation, a Carter had married a Malone. There is no tradition of any other cases in Mr. Carter's family or any of his forbears or relations. Of the children of the group of eleven, one son had progressive muscular dystrophy and three daughters were the mothers of children who developed the disease.

In the next generation, two of the Carter sisters married Mr. Meek, one son of each sister developed the disease, a son and daughter of the first wife escaped the disease, but the daughter bore three sons that developed it. Of the second wife, a son developed the disease and a daughter and two sons have escaped it. Mr. Meek says no progenitor of his or other relatives ever developed it. A Carter daughter married Mr. Tubb. Of the three Tubb sons, two developed the disease, one escaped. The four Tubb daughters escaped as have their children up to date. Mr. Tubb says that no progenitor of his ever had the disease.

In the next generation, a daughter of Mr. Meeks married Mr. Moffett. Three of their sons have developed the disease. Mr. Moffett says that no progenitor of his has ever had progressive muscular dystrophy. In this, the Moffett family, and their progenitors for at least three generations, we find cases of progressive muscular dystrophy as a familial sex linked disease affecting males only, transmitted only through non-affected females.

In each generation about one-half of the males escape and they never pass the disease on to their progeny. The affected males have no children. In each generation all of the females escape the disease, but about one-half the females pass the disease on to their male children.

In the Pickle-Ray family the disease does not appear to be inheritable in either the direct or indirect sense. The case is a female.

Discussion

These are cases of progressive muscular dystrophy most of them of the familial type, sex-linked transmitted by clinically healthy females to about half of their sons. The disease appears to a recognizable symptomatic extent of about five to ten years of age and death terminates life in the middle twenties or before. The affected males do not beget children.

In the Pickle-Ray case, the person affected was a female. It was not passed on. Other than its sex relations and its familial characteristics, this case was identical with the other cases.

Etiology

No adequate cause of this syndrome is known. We limit ourselves to a discussion of one of the contributing causes.

Inheritance

Davenport says whenever the male parent is characterized by the absence of some character to which the determiner is typically lodged in the sex chromosome a remarkable set of inheritances is to be expected. This is called sex limited inheritance. The striking feature of this sort of heridity is that the trait appears only in males of the family; is not transmitted by them, but is transmitted through normal females of the family. Striking examples of this sort of heredity are found in cases of multiple sclerosis, atrophy of the optic nerve, color blindness, myopia, ichthyosis, muscular atrophy and hemophilia "(Not to mention normal conditions such as barring in Domineck and Plymouth Rock chickens, Polacheck says that growers recognized the hereditary character of the disease in 1879)."

A part of the very considerable literature dealing with this disease centers upon a discussion as to whether it is a dominant or a recessive character. Some hold that it is a dominant and in those generations in which it is not found it is present but is so mildly symptomatic that it is overlooked.

The weight of the opinion is that it is a sex linked familial disease.

The Rh Factor as an Obstetrical Hazard*

CHARLES W. PATTERSON, M.D.
Rosedale, Miss.

THE MEDICAL PROFESSION had seemingly advanced to an unprecedented height when, by the great weapons of blood grouping, those barriers obstructing the safety of blood transfusions, were thought to have been surmounted. But, with the growing popularity of this life-saving method, many explosive reactions began to occur from the mixing pot of those two liquids that normally should have been compatible and the increased scientific investigation which followed soon uncovered many interesting facts.

At Bellevue Hospital in 1937, a patient with pre-eclampsia was delivered of a macerated fetus and given a blood transfusion from a donor of the same type. The transfusion was followed by a severe reaction. After investigation Philip Levine and his co-workers found that the patient's blood contained an atypical glutinin which agglutinated about eighty per cent of all blood in this group.

In 1940, Landsteiner and Wiener discovered the Rh factor, the name being selected from the first two letters of the word "rhesus" (Rh). They derived an immune agglutinin which could be produced in rabbits or guinea pigs by repeated injections of the red cells of the rhesus monkey. By using this rabbit or guinea pig immune serum and suitably mixing it with human red blood cells, they were able to subdivide each of the four groups of human blood into two classes; the Rh positive and the Rh negative. If there is an agglutination similar to that which occurs when the red cells from the rhesus monkey are mixed with the immune serum, it is known as positive Rh blood. If there is no agglutination, then it is negative Rh blood. The Rh factor is inherited as a Mendelian dominant, and it is either heterozygous or homozygous, depending upon whether inherited from one or both parents.

Since the discovery of the Rh factor and the elimination of many preventable reactions that were caused from blood transfusions, our efforts should be focused now on the dangers confronting the mothers and infants when an Rh negative woman is married to an Rh positive man. Frequently the Rh negative mother carries her first Rh positive baby to term and a successful delivery of a healthy child. The first pregnancy usually builds up a small percentage of antibodies in the mother, and then each succeeding pregnancy increases the immunization which produces more anti-agglutinins in the mother until the titre of Rh antibodies is raised to the level that produces erythroblastosis fetalis. Since the Rh factor is only present in the red blood cells, there must not only be an intermingling of the maternal and fetal blood through the placental barrier, but an actual passage of the red blood cells from the mother to the fetus and the fetus to the mother, so that when the fetal red blood cells enter the maternal circulation, the action is as an antigen and causes the developing of the anti Rh agglutinins which must then pass through the placenta to the fetal circulation with hemolysis of the fetal red cells and the development of the disease entity of erythroblastosis fetalis. If the father is heterozygous there is a slight possibility that the fetus will not contain an antigen and therefore could not be agglutinated, which makes it possible for an Rh negative mother, when bearing twins, to have one entirely normal child and the other die from erythroblastosis fetalis.

Having recently had experience with a very interesting case, I will next give the case report.

Case Report

Mrs. K. O. S.: Color white, female, age 30 years, married eight years. Past health has been exceedingly good, only having had the usual childhood diseases such as measles, mumps, chicken-pox, and tonsillectomy. A complete obstetrical record of this case will be presented that you may observe the manner in which the Rh factor, slowly but surely, works its hazard through multiple pregnancies of the Rh negative woman married to an Rh positive man. This woman has been pregnant three times and is the mother of two healthy living children and two dead infants.

First Pregnancy: On March 21, 1939, after a normal nine months pregnancy, she was delivered of a normal baby boy weighing seven pounds, four ounces. At the present time he is living and in good health.

Second Pregnancy: From the beginning she suffered with more than the usual complaints of pregnancy until May 1942, when five months had lapsed, I was called and found her suffering from severe pains with intervals of about three minutes between uterine contractions. After treatment and several weeks' rest in bed, she went to term and was delivered on September 17 of twin girls weighing six pounds, the larger, and four pounds twelve ounces, the smaller. Within forty-eight hours both babies showed slight jaundice, but while the larger soon became normal, the smaller continued to become more jaundiced and anaemic until death, which occurred on the fourteenth day, regardless of special nursing care and treatment.

Third Pregnancy: The first examination on March 20, 1944, revealed a three-month pregnancy and a very anaemic patient with a blood pressure of 96/50. After internal administration of liver extract and iron to April 11, the laboratory report showed hemoglobin, 80 per cent, total red cells, 3, 500,000; white cells, 6,800: small mononuclear, 30 per cent; large, 4 per cent, neutrophils, 60 per cent; malaria negative; urine, normal. Following this report, the liver extract was given by needle for several weeks which caused her to appear and feel much improved even though the blood pressure continued at the same level of 98/52 until July 7, when it suddenly went to 130/80 with the urine very dark amber-colored but otherwise negative. After twenty-four hours of absolute rest in bed, strict diet, treatment with no improvement, and a laboratory report of hemoglobin, 60 per cent; red cells, 3,100,000; white 10,000; small mononuclear, 22 per cent, neutrophils, 74 per cent; urine, negative chemically and microscopically but very dark in color, I decided to call Dr. E. R. Nobles in consultation.

After a thorough study of the case, we decided that she should be given a blood transfusion, so July 9, from a properly typed and cross matched donor, 500 cc. of citrated blood were given and completed at 11:00 a. m. At 11:45 she had a hemolytic reaction with rigors, excruciating pains of the head, extremities, and over the cardiac region, also the sensation of a vise compressing the thorax with difficult respiratory action. Examination revealed a very irregular weak heart which gradually became normal after the administration of adrenaline, morphine, and oxygen. Following a very restless afternoon, although slightly over six months pregnant, she was delivered at 11:00 P. M. of a dead female baby with the appearance of having no blood in the body and an extremely large pot belly, also ecchymotic spots on the buttocks, legs, and arms, with slight edema. The placenta was not only tremendous in size but had the consistency of jelly. The total amount of a twenty-four hours' specimen of urine, to July 10, was only two ounces and contained blood, pus, albumin. She was then given 1,000 cc. of 10 per cent dextrose solution intravenously twice daily until there was a sufficient daily output from the kidneys. But on July 16, because of continued nausea, vomiting, pains in the head, and elevated temperature, Dr. Nobles and I decided, after a thorough examination, that she was suffering from a localized peritonitis, although delivery was accomplished without a vaginal examination, so we began a treatment of 10,000 units of penicillin every three hours intramuscularly. She seemed very much improved on July 18, but the following day a general peritonitis had developed and with it a very ill patient. It was than that 100,000 units of penicillin were given in 1,000 cc. normal saline solution by the drop method intravenously and completed after a period of three hours. At this time, Dr. H. A. Gamble arrived and, after consultation, we agreed to continue the penicillin in 20,000-unit doses intramuscularly every three hours and also give daily treatments with the Elliott machine.

The improvement was very gradual until she fully recovered and was discharged from the hospital on July 30.

Laboratory tests showed the blood of the father and the donor to be Rh positive, but that of the mother, having Rh positive cells from the donor in the circulation when sent to the laboratory reacted against the anti-Rh testing serum, as always happens, so the blood must be classified from the past clinical record.

If we consider the normalcy of the first pregnancy and child, the abnormalcy of the second with the death of one twin presenting all the symptoms of erythroblastosis fetalis, then the last pregnancy and the hemolytic reaction from an Rh positive blood transfusion followed by the birth of a six-and-one-half-month dead baby with erythroblastosis fetalis, surely there could be no doubt as to this mother having Rh negative blood. It is also a clinical fact that the father is heterozygous; otherwise, one twin could not have survived.

CONCLUSION

I will endeavor to enumerate a few of the recent trends of thought.

I. Eclampsia is related to a blood incompatibility of the fetus and mother. The fetal erythrocytes being agglutinated in the maternal circulation by specific agglutinins produced by the immunized mother cause liver and kidney damage with the ensuing symptoms of pre-eclampsia and eclampsia.

II. If an Rh positive mother carries an Rh negative fetus the Rh antibodies may enter the maternal blood and destroy the red cells, causing a post-partem anemia.

III. The Rh factor is an antigenic substance similar to others previously discovered and occurs only in the red cells, also there are no normal agglutinins against it.

IV. It is thought that placental injuries are the cause of the passage of red blood cells from the one to the other, but I believe it is the action of the antibodies and antigenic substances within the placenta that creates the degenerative change by which this passage is accomplished.

V. Eighty-five per cent of all persons are Rh positive and cannot be immunized against the Rh factor. However, the fifteen per cent belonging to the Rh negative classification and occurring equally between the two sexes may acquire specific anti-immune bodies, and because of this fact serious complications may develop. Pregnancy and repeated transfusions increase the Rh agglutinins, but pregnancy provides a far better antigenic stimulus than repeated transfusions.

The Rh positive fetus must inherit the factor from the Rh positive parent or the antigen-antibody response will not occur in the fetus.

VI. If an Rh negative woman is married to an Rh negative man and is impregnated with an Rh negative baby, then the antigens being of the same group will be neutral and not cause a hemolytic reaction, so she will give birth to a normal Rh negative child.

The same results will be had if repeated blood transfusions are given by properly matched and typed blood of the same Rh group.

Artificial insemination of the same Rh group, where the mother is Rh negative and father Rh positive, will prevent erythroblastosis.

All higher motives, ideals, conceptions, sentiments in a man are of no account if they do not come forward to strengthen him for the better discharge of the duties which devolve upon him in the ordinary affairs of life.

—HENRY WARD BEECHER (1813-1887)

Thiouracil*

A. STREET, M.D.

Vicksburg, Miss.

Kennedy and Purves in 1941 showed that rapeseed and allyl thiourea are potent goitrogens. Later the MacKenzies and McCollum and Astwood showed that thiourea and thiourea derivatives, especially[2] thiouracil, produced morphologic hyperplasia, associated with inhibition of thyroid function[1] and Astwood employed thiouracil in the treatment of patients with toxic goiter.

There is now ample evidence that thiouracil can be depended upon to reduce thyroid activity of both the toxic and normal patient. The drug seems to stop the production of the thyroid hormone. Thyroxin already present before stopping production is very slowly disposed of by the body processes, and therefore considerable time may be expected to elapse between the beginning of medication and the fall in metabolic rate. In dealing with toxic patients it usually requires three to eight weeks for the rate to fall within normal range.

Unfortunately the drug has serious properties which have been manifest in five to twenty per cent of reported cases. The most serious toxic reactions are the result of bone marrow damage and consist of agranulocytosis, granulocytopenia and leukopenia. This type of reaction may be incontrollable and fatal cases have occurred. However, the more serious type of toxic reaction is comparatively infrequent and the majority of reactions are not so important. They include jaundice, drug fever, swelling of submaxillary salivary glands, dermatitis, arthritis and arthralgia, oedema of legs, nausea and vomiting, and diarrhoea.

Williams and Clute[2] report results in the use of thiouracil in the management of 152 hyperthyroid patients, fifty-nine of whom were subjected to subtotal thyroidectomy after controlling the symptoms with thiouracil. Some patients with malignant exophthalmos showed an exacerbation of that symptom shortly after starting thiouracil. This was successfully combatted by giving dessicated thyroid in conjunction with the thiouracil. Dessicated thyroid was also found to have a tendency to reduce the size of the thyroid gland. Iodine was administered along with thiouracil to some patients pre-operatively in order to diminish vascularity of the gland at operation. Thiamin and brewers' yeast were added to the treatment in an attempt to combat the possibility of leukopenia. The size of the gland and the microscopic picture of the toxic thyroid is not altered by thiouracil.

Our own experience with thiouracil has so far been very satisfactory. Of fourteen cases treated there has been only one toxic reaction which consisted of slight fever and skin eruption. Toxic thyroid symptoms have been well under control after three or four weeks of medication, subtotal thyroidectomy has been well tolerated, postoperative crises have been absent, and vascularity of the gland has not been troublesome. Frequent clinical observations and blood examinations have been done during thiouracil treatment.

Thiouracil does not seem to be a medical cure for hyperthyroidism. It does not attack the cause of the disease, but it does stop the synthesis of the thyroid hormone and controls the symptoms. On stopping the drug the symptoms will recur. It does not seem wise to continue the drug indefinitely because of its toxic properties. Except for the small but definite risk of serious toxic reaction thiouracil seems to be the most efficient drug yet developed for the control of hyperthyroid symptoms and for preparation of thyrotoxic patients for surgical treatment.

BIBLIOGRAPHY

1. Gargill, S. L. and Lesses, M. F.: ("Toxic Reactions to Thiouracil," J.A.M.A. 127: 890 (April 7) 1945
2. Williams, R. H. and Clute, H.M.: "Thiouracil in the Treatment of Thyrotoxicosis," J.A.M.A. 218: 65 (May 12) 1945.

When egotism goes out, true philosophy enters the soul.

—Anderson M. Baten

The Mississippi Doctor

Published monthly at Booneville, Mississippi

Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1879. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

OFFICIAL ORGAN OF
Mid-South Postgraduate Medical Assembly
Mississippi State Medical Association

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ... .Assistant Editor

David E. Guyton, Blue Mountain College ......Poet

Mid-South Postgraduate Medical Assembly

OFFICERS:

C. H. Lutterloh, M. D. ....President
Hot Springs, Ark.
J. C. Pennington, M. D. ....President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. ....Vice-President
Greenville, Miss.
John A. Moore, M. D. ....Vice-President
El Dorado, Ark.
A. F. Cooper ....Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. ....Director of Exhibits
Memphis, Tenn.

EDITORS:

Fay H. Jones, M.D. E. M. Holder, M.D.
C. R. Crutchfield, M. D. C. M. Speck, M.D.
H. King Wade, M. D. F. M. Acree, M.D.

Mississippi State Medical Association
EDITOR
Lawrence W. Long, M.D.
ASSOCIATE EDITORS
J. G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

TO HAVE OR NOT TO HAVE

About the most important question before the people of Mississippi right now is whether to have a four-year medical school or not to have one. For forty-two years this state has had what has been recognized as one of the best two-year schools in any state. Not long ago there were ten two-year medical schools in the United States, but only three or four are now left, the others having been advanced to four-year schools or subsidized by another school. Some claim we do not have the clinical material for the other two years, but this is not true. It is not the number of clinical patients that counts; it is how well the few are utilized for teaching purposes. Mississippi has a per capita distribution of funds for the indigent sick. This is the biggest step forward ever made for the rank and file. And with a central hospital and medical school used as a means to apply medical service, clinical material from all over the state could be utilized for teaching purposes, all that is needed. Of course there must be an affiliation between the central hospital and all hospitals of the state. Interns might serve their last six months in the smaller hospitals over the state, making calls with practitioners who know clinical medicine, and finally find a place of leadership in the small town. In the big centers today interns are taught so much in terms of expensive operating rooms, nurses, assistants, number and chart system of management, limited office hours, and big fees, that it is impossible to induce one to return to the country.

With the hospital system we have, insurance could be made available to the entire state, or a large portion of it. Many believe that we have to have a five-hundred-bed hospital if it it is to be operated economically. What about the expense to the patients who travel all this distance to the hospital? Here is where the one-sided economist comes in. Nevada has the highest number of beds per population in the union, but poorly distributed, and she has the highest death rate for appendicitis in the nation, more than twice that of Mississippi. Dr. Time is the most successful surgeon this country knows for acute appendicitis and many other conditions. Therefore a system of small hospitals and a plan of education for the laity will eventually assure an operation for acute appendicitis within six hours of the onset.

It is not the big hospital that we need; it is a better distribution of beds and the availability of them to the very sick patient. Furthermore eighty-five per cent of the people of Mississippi get sick and die of ordinary diseases which should be handled just as well by eighty-five per cent of the rank and file of doctors. When both physicians and patients analyze the specialist's strategy in "I am the only one who can do it" and "I must have him in a five-hundred-bed hospital so more interns can see me operate" it becomes obvious that his method is self-advertising. The time has come, medically speaking, that the people need to be able to get just a plain shave instead of a lot of expensive mud massages. A hospital in Mississippi does not have to be equipped for every kind of therapy known, nor does the medical school. Richmond, Rochester or Boston may still have a chair for aneurysm of the circle of Willis or Simmond's disease. We shall continue to affiliate medically with the rest of the world, even if we do have a medical school to serve ninety-five per cent of our population.

Others say, Give us a better hospital system first and then some time you can have the four-year medical school. Yes, but we have about decided now that we have waited forty-two years too long for a four-year medical school. A post office that does not deliver mail out to the folks on the rural route would not be tolerated; and yet we have a lot of medical schools that are content with just giving a diploma. Mississippi can have a school that can show the way to a better day in medicine for the people. If Tennessee can have three schools, Louisiana two, and Virginia two, why can't we have one? The Lord is pouring out the oil in our state maybe just for this purpose. We have thirty millions in cash, and we already have the best distribution of hospitals in the United States although they need to be improved a lot.

Some few seem to be afraid of a central hospital at Jackson. This is false fear. The idea we have of a four-year school and a hospital affiliation will help every doctor in the state, every town and every individual. The system we are thinking of will give more practice to every doctor and better service to every individual.

Our state is now drained from every side of the best practice, but with the proper extension consultant service this would not be the case.

If our two-year school has to go, which we think it will probably soon, then we shall be indebted to other states as far as training our fine boys is concerned.

Last fall we asked Dr. Fishbein what he thought of our state having a four-year medical school and he replied, "If we are to continue to have states as units of government, I think you should have it." We considered this statement fine food for thought.

It has been suggested that we send our Negroes up in Tennessee and get some Negro doctors "which is about all we need." A few good Negro doctors would be fine, but have we stopped to think that our Negro population might not remain as it is very long? Finger picking of cotton is on its way out and industry in Mississippi is already in. This may change the color of our population.

Anyway we think Mississippi should have a four-year medical school used as a means to an end and the end would be to build total health assets, mental, physical, and spiritual in all the people.

§

Dr. Seale Harris, the spirit of Southern medicine, is writing a book on Dr. Marian Sims of Alabama, the father of gynecology. Every doctor will be anxious to have a copy of this book as well as his book on Dr. Banting. Dr. Harris has prepared an article on the life and work of Dr. Sims for the Alabama State Medical Journal and he has very kindly sent it to us also. Our readers will be delighted to read what Dr. Harris has written on this international character in the field of gynecology. This will appear in the August and September issues of *The Mississippi Doctor.*

§

The casualty list among our doctors in civil life is keeping step with the rate on the battlefield. It is probably exceeding the combat list. Our doctors have displayed great patriotism and loyalty to duty and determination of purpose in their efforts to hold the civil firing lines in practice while their younger fellow doctors do their duty in a wonderful manner in the battle arena. Glory and honor to them.

§

In the death of Dr. S. J. Wolferman of Fort Smith, Arkansas, the Mid-South lost a fine spirit in the field of medicine. He was able in his profession, cordial in his relations to his fellow doctors, and always ready to give liberally of his time to organized medicine. Dr. Wolferman served on the council of the Southern Medical Association, and was always active in the Mid-South Postgraduate Medical Assembly. He was a delightful man to know, reasonable, cordial, and fair-minded. We deeply regret his going.

§

New Orleans has long set a pace in Southern medicine. Dr. Rudolph Matas is the medical sage of New Orleans, the dean of the surgical world, the master medical spirit of the last half century. But there was another in New Orleans, one very popular, very efficient, very able and self-sacrificing, Dr. James T. Nix, whose untimely death is mourned. Loved and revered, he was a great inspiration to the profession. He truly possessed the heart, the spirit and the mind of a true doctor, a great surgeon. He was not only loved in his own city, but he was known and admired throughout the South. A great surgeon, an able writer, and a powerful Christian spirit has left us, truly another war casualty. We are happy to have claimed him as a friend, and to have felt the power of his personality.

§

Dr. M. Y. Dabney, president-elect, Southern Medical Association, Birmingham, has announced his appointments to the Council, effective at the close of the annual meeting in November. From now until the annual meeting these names will be carried on the official roster as councilors-elect.

Florida—Dr. William C. Thomas, Gainesville, to succeed Dr. Walter C. Jones, Miami.

South Carolina—Dr. W. L. Pressly, Due West, to succeed Dr. J. Warren White, Greenville.

Texas—Dr. Walter G. Struck, San Antonio, to succeed Dr. Curtice Rosser, Dallas.

Virginia—Dr. T. Dewey Davis, Richmond, to succeed Dr. Thomas W. Murrell, Richmond.

SOUTHERN MEDICAL ASSOCIATION EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council of the Southern Medical Association met at the Tutwiler Hotel, Birmingham, Monday, May 21, and went on record as favoring the usual annual meeting this year unless conditions indicate that a meeting should not or could not be held. The Executive Committee named a committee of three to handle a request to the Office of Defense Transportation for permission to hold the regular meeting in November. Members of this committee are Dr. Oscar B. Hunter, chairman, Washington, D. C.; Dr. James S. Simmons, Brigadier General, Medical Corps, U. S. Army, Washington, D. C.; and Mr. C. P. Loranz, secretary and general manager, Birmingham, Alabama.

It was decided that it would not be proper in these war times to have non-medical activities, social, semi-social or entertainment activities. If the meeting is held in November, there will be no president's reception and ball, no alumni reunion dinners, no fraternity luncheons and no golf or trapshooting tournaments. There will also be no meeting of the Woman's Auxiliary, since it is a semi-social organization. All Auxiliary officers will be held over until another year.

Two of the distinguished physicians attending the Executive Committee meeting of the Southern Medical Association presented papers: Dr. Curtice Rosser, Dallas, Texas, "The Influence of Race on Ano-Rectal Diseases," and Dr. Oscar B. Hunter, Washington, D. C., "The Clinical Significance of the Rh Factor."

MEDICAL SEMINAR

An illustrated lecture seminar integrating the patho-physiological reactions of the human being to the environment, and covering a wide range of medical problems of interest to the practicing physician, will be conducted by Dr. William F. Petersen commencing Monday September 17 and extending through September 22. Sessions will be held from 9:30 to 4:30 each day in the Conference Room of the Institute of Medicine, Chicago. Detailed information, program, registration applications, can be obtained from the Secretary, Institute of Medicine of Chicago, 86 Randolph Street (Crerar Library Building) Chicago, Ill.

All the people in our state deserve medical service. All can have it just like they have daily mail, farm service, public education, hard-surface roads and electric lights. They will if we establish a medical school to be used as an end, the object being to give all the people the best possible in medicine. The big medical schools have been too largely satisfied with just issuing a diploma and have not yet caught the vision of medical service to the people.

ANNOUNCEMENT

The Vicksburg Hospital, Inc., and the Vicksburg Clinic announce the appointment of Dr. Robert M. Moore, professor of pathology and clinical laboratory, University of Mississippi, School of Medicine, as pathologist and director of clinical laboratories, June 4. 1945.

It is said that a river becomes crooked following the line of least resistance. So does man.

Deaths

DR. J. T. NIX

Dr. James T. Nix, New Orleans, Louisiana, died in May of this year at the age of 58. He was a graduate of Tulane University, (M.D.), Loyola University (M.A., LL.D.). Dr. Nix served on the surgical staff with Dr. Rudolph Matas several years, professor of surgery of Loyola, dean of Louisiana State Medical School, held many important civic and professional connections, member of numerous fraternities and medical societies, author of several treatises, poems and scientific articles. Dr. Nix was one of the most devoted of men to his profession, and one of the most beloved.

Dr. Nix is survived by his wife, a son and a daughter.

DR. WALTER FRANK COLEMAN

Dr. Walter Frank Coleman died June 12, 1945, at his home at Hickory Flat, Mississippi, at the age of 60. He had been ill several months.

Dr. Coleman was born at Wallerville, Mississippi, was graduated from the University of Tennessee School of Medicine in June, 1915. He practiced medicine in Tennessee before moving to Mississippi. He was a leader in religious and civic activities besides having served as president of the North Mississippi Medical Society in 1939.

Surviving are his wife, Mrs. Ada Caldwell Coleman, a brother, I. M. Coleman, of Columbus, Miss., and a half-sister, Mrs. Clara Cornelius of Texas.

DR. SAMUEL H. HOWARD

Dr. Samuel H. Howard died at the home of his daughter, Mrs. Pugh Winborn, Durant, on June 19, 1945. He was 81 years of age. A pioneer citizen of Durant, Dr. Howard practiced medicine at A. & M. College for eight years, then operated a hotel for a number of years. He was a graduate of Memphis Hospital Medical College, Memphis, Tennessee.

Dr. Howard is survived by his daughters, Mrs. Winborn, and Mrs. E. H. Archer, of Nebraska; and two sons, D. M. Howard and B. H. Howard, of South Carolina.

DR. CLAUDE T. KEYES

Dr. Claude T. Keyes, born at Fulton, in 1870, died May 7 during an operation at a hospital in San Angelo, Texas. He was a member of one of the pioneer families of Lee and Itawamba Counties, a graduate of Memphis Hospital Medical College. He moved to Texas in 1911, and carried on an active practice until his health failed in recent years. He leaves six children, all living in Texas. Four sisters also survive: Mrs. D. S. Ballard and Mrs. George Thompson, both of Tupelo; Mrs. Wylie Frances of Nettleton and Mrs. Lige Ballary of Dallas. Services were held in San Angelo.

DR. C. M. DAVIS

Dr. C. M. Davis, 76, pioneer Laurel physician, died May 22.

Dr. Davis came to Laurel from Louisiana at the age of 24 soon after completing his medical training and had practiced there ever since. Dr. Davis was a graduate of Vanderbilt University, Nashville, Tenn. He operated a large clinic for several years. He leaves his widow and two sisters, Mrs. N. P. Vernon, Amite, La., and Mrs. A. W. Whiteman, New Orleans.

DR. C. W. PATTERSON

Dr. Charles W. Patterson, who practiced medicine in Pontotoc and adjoining counties for many years, died at Grenada Hospital. He was 73 years of age. He was living at Crowder when he became ill. He received his education at Memphis Medical College, Memphis, Tenn., and was licensed in 1907 to practice in Mississippi.

Burial was at Pittsboro following services at Calhoun City. Dr. Patterson was a member of pioneer families of Calhoun County.

DR. C. E. BOYD

Dr. C. E. Boyd, of Hatley, died of a heart attack at the Baptist Hospital in Memphis Saturday, June 9, after an illness of only a few days, although he had been in a run-down condition from over-work for sometime.

The last rites were held from the Quincy Baptist Church Sunday morning at 10 o'clock, with burial in Quincy Cemetery. He was a member of the Amory Baptist Church. Born at Quincy in 1882, he was married in 1905 to Eda Phillips, who survives. In 1911 he graduated from the Medical Department of University of Alabama, which was located in Birmingham. That same year he moved to Hatley where he has been a popular practicing physician until he was forced to take his bed a week before he died.

Two children survive, Olga Boyd, of Hatley, and Mrs. Dixie Brewer, of Amory. He leaves two grandchildren, Claude and "Kim" Boyd. Brothers surviving are Ethel and Floyd Boyd of Quincy, and Wayne Boyd of Dancy, Alabama.

DR. EDWARD A. GRICE

Dr. Edward A. Grice, 64, who died at his home in Epps, La., was buried at Palestine.

He spent his early life in Clay County, where he practiced medicine at Montpelier.

Survivors include his wife, Mrs. Nora Murry Grice, of Epps, La., one son, Wilson A. Grice of Point LaHash, La., two grandsons, Billy and Sonny Grice, and one sister, Mrs. Lillian Skinner of Cleveland, Texas.

DR. S. G. SCRUGGS

Funeral services for the late Dr. S. G. Scruggs, who died in Memphis, were conducted from the First Methodist Church. Burial was in Odd Fellows Cemetery, following funeral service.

Dr. Scruggs was 96 years old and practiced in Grenada as a specialist for many years, before going to Memphis in 1934 to reside with his daughter, Mrs. J. L. Findley.

God will not look you over for medals, degrees or diplomas but for scars.

The longer I live, the more deeply am I convinced that that which makes the difference between one good man and another—between the weak and powerful, the great and insignificant, is energy—invincible determination—a purpose once formed, and then death or victory.

—Fowell Buxton (1786-1845)

Interpreting Medical Literature

Staff of Review

Dermatology—**James G. Thompson, Jackson.**

Ear, Nose and Throat—**Edley Jones, Vicksburg.**

Obstetrics and Gynecology—**J. F. Lucas,** Greenwood.

Orthopedics—Thomas **H. Blake, Jackson.**

Public Health—**Felix J. Underwood, Jackson.**

Pediatrics—Harvey F. Garrison, **Jackson.**

Radiology and Roentgenology—**Karl O. Stingily,** Meridian.

Surgery—W. H. Parsons, **Vicksburg.**

Urology—Temple Ainsworth, **Jackson.**

DERMATOLOGY

Archives of Dermatology and Syphilology, V. 51; No. 4; April, 1945, page 272.

Treatment and Prevention of Dermatophytosis and Related Conditions. Joseph G. Hopkins, Arthur B. Hillegas, Earl Camp, R. Bruce Ledin and Gerbert Rebell, Bull. U. S. Army M. Dept., June 1944, No. 77, p. 42.

The work described in this paper was done under a contract, recommended by the Committee on Medical Research, between the office of Scientific Research and Development of the National Research Council and Columbia University. The findings, which should not be considered final, are stated somewhat categorically for the sake of brevity.

Inflammation of the skin of the feet may result from many causes, of which the following were recognized by these authors: mycotic infection, pyogenic infection, allergy, hyperhidrosis, trauma and hypostasis.

The authors stress two principals of treatment: (1) hygienic measures, such as cleanliness, dryness and aeration of the areas involved and elevation of the feet to relieve hypostatic congestion, and (2) active treatment as such, which must avoid injury and vary with the causation and type of involvement. Fungi have been found in about 70 per cent of cases on intertrigo of the toes and in over 90 per cent of dyshidrotic lesions on the soles. The most effective treatment agents in such cases are those which attack the fungi. In general, iodine, a number of mercurials, thymol, and several essential oils have seemed low in effectiveness and irritating in a significant number of cases. The dyes, too, appeared weakly fungicidal according to these investigators. Of the familiar fungicides, benzoic acid, salicylic acid and sulfur were the most useful drugs. Ointments should be used only at night and wiped off thoroughly in the morning and a powder applied to the toes. The addition of 10 to 25 per cent bentonite to talc powder increases its absorptive quality.

In cases of a simple intertrigo, an ointment or paint should be applied to the sides and webs of all the toes and the entire sole every night until the skin appears normal and should also be applied once a week throughout the warm season, to prevent relapse. A benzoic acid paint is recommended among others, the formula for which is benzoic acid 5 gm. acetone 15 cc. and cotton seed oil 85 cc. For obstinate infections sulfur and salicylic acid ointments are recommended. For fissured and denuded areas an ointment of zephiran chloride (10 per cent) 5cc., water 22 cc., hydrous wool fat 25 cc. and petrolatum 50 cc., was very useful. For some obstinate infections, 5 per cent sulfathiazole ointment succeeded when zephiran ointment failed to bring improvement. Potassium permanganate baths are recommended (about 1:4,000) for acute or overtreated dermatoses with dyshidrotic lesions on the soles. Zephiran (200 cc. of 10 per cent concentration of zephiran chloride) in 2 liters of water proved to be a very effective non-irritating foot bath.

The follow-up treatment after the active lesions have subsided is stressed and consists of hygienic measures and fungicidal paints.

Anychomycosis was treated by thorough removal of all portions of the nail that had become friable or loosened from the bed, and a chrysarobin paste was used among others. A satisfactory paint for lesions of the groin and trunk that are not eczematized is reccommended. It consists of salicylic acid 3 gm. and tincture of merthiolate (1:1,000) 100 cc.

The authors discuss at length the symptoms and treatment of local hyperhidrosis and stress the importance of prophylaxis. There are numerous formulas in this paper which can not be given here on account of space. Physicians who know how difficult it is at times to treat dermatophytosis will appreciate the excellent report.

Trench Foot. Robert C. Berson and Ralph J. Angelucci, Bull. U. S. Army M. Dept., June 1944, No. 77, p. 91.

The critical temperature for cooling tissues according to Berson and Angelucci appears to be in the region of -5° to -7°. Tissues cooled below this temperature are killed.

The term "frost bite" should be reserved for the condition in which tissues have been cooled below the critical temperature, while the term "trench foot" should be reserved for feet which show evidence of damage due to cooling above the critical temperature, according to these authors.

In the 144 cases of trench foot studied by Berson and Angelucci there was presumptive evidence that a past history of symptoms from exposure, a family history of diabetes and hypertension and a past history of smoking were not important predisposing factors.

A series of 88 consecutive patients was divided into three treatment groups. The first group was given a regular hospital diet, absolute rest in bed and as much codeine as required to keep them fairly comfortable. The second group was in addition given Buerger's exercises four times daily. The third group was given no exercise but was given 50 mg. of thiamine hydrochloride hyperdermically twice daily. There was no demonstrable significant difference in the comfort, the amount of sedation required or the rate of recovery in the three groups.

The following suggestions for early treatment were given: 1) removal of all potentially constricting clothing and shoes, 2) prohibition of walking or weight-bearing on the feet, 3) immediate application of cooling by the most efficient method at hand and continuation of such cooling until its slow withdrawal does not cause the feet to become noticeably warmer than the rest of the body, 4) strict avoidance of all warming agents (clothing, dressing, hot water bottles, stoves, etc), 5) strict prohibition of all massage. 6) avoidance of sympathetic block at the early stage. Strakosch, Denver.

PEDIATRICS

Alum-Precipitated Diphtheria Toxoid for Inoculation of Persons Exposed to Whooping Cough—Munox Turnbull, Jorge. American Journal of Diseases of Children, 69. January, 1945.

While studying the clinical modification of whooping cough by the use of alum-precipitated diphtheria toxoid, the writer had the opportunity to observe nine children exposed to siblings with pertussis who were inoculated with this toxoid at the time the siblings began to cough or before, and who were protected from whooping cough in spite of the fact that they continued to live with the siblings who had the ailment. This fact at the time seemed significant, although not conclusive, and induced him to institute observations of other exposed persons under the same circumstances. "The fact that the latter subjects obtained protection by inoculation with alum-precipitated toxoid supported the idea suggested by the first nine cases."

Up to the present time the writer has observed sixty-one exposed children under conditions that do not warrant the slightest doubt that opportunity for contagion existed, since all of these children lived in the same houses and many slept in the same bedrooms as one or more siblings who had whooping cough.

"In addition, there were four persons exposed to pertussis in whom the disease developed despite inoculation at the time the siblings began to cough or before. Although these persons had a mild form of the disease, there is no question of protection. However, the clinical modifications of the disease in these patients should be noted: Its duration never exceeded three weeks, and the intensity of the disease was less than it was in children who had not been inoculated."

The writer proposes the hypothesis of synergy of two antigens—in these cases, Bacillus pertussis and diphtheria toxoid—to explain the improved immunization response. At the present time he believes that is how the diphtheria toxoid acts on children already infected with whooping cough.

"The criteria used in classifying a child as exposed were as follows:

"1. One or more of his brothers and sisters must have whooping cough with all its clinical characteristics." These characteristics are: at least one week of spasmodic cough, vomiting, congestion of the face during the coughing spell, and a final loud inspiration.

"2. Another frequent factor of importance and essential was that of epidemic—the coexistence of two or more cases of whooping cough in the same house.

"3. A child was considered exposed if he had been living intimately with infected persons during the catarrhal period, especially if the contact was made at the beginning of the period of spasmodic cough.

"A child was considered protected if he had been inoculated before or just at the time that his cough began of course without spasms) and if he did not cough for more than ten days.

"The doses of alum-precipitated diphtheria toxoid used were as follows: 0.5 cc. for infants from birth to the age of 3 months; 1 cc. for infants from 3 to 12 months old, and 1.5 cc. for those above 1 year of age. The injections were made every week subcutaneously in the deltoid region, with a maximum of three injections."

"Most of the protected subjects who were exposed to pertussis coughed for several days after being inoculated, the maximum length of time being six to ten days. Others did not cough at all."

In regard to subjects who coughed for a few days, it is the writer's impression that they were protected in the best possible manner, because if they had, as a matter of fact, such a mild form of pertussis that it could not be recognized were it not for the antecedent possibility of contagion, then they should have acquired definite immunity.

"A very important fact is that several of these children were just a few days or months old. It is known that the mortality rate is highest in infants under one year of age, since at this age complications such as bronchopneumonia, encephalitis, and especially convulsive conditions are frequent."

"Not in all subjects was there complete absence of cough. However, as regards those considered protected, if they did cough it was never for more than six to ten days and always in a manner that only vaguely suggested pertussis." The sixty-one subjects whom the writer has observed have demonstrated that the best results are obtained when the injection of diphtheria toxoid is done during the period of incubation. "If, on the other hand, the injections are made in the catarrhal period, then the disease can be favorably modified in its evolution and intensity and in the frequency of the coughing spells."

COMMENT

This article is of unusual interest since the study, as well as tests given in this experience comes from good authority and one can be assured that there is evidence of good results from such procedure. The remedy is accessible, its use very simple, and can be secured and given by any physician without delay immediately after exposure of the infants to the disease.

State Board of Health

Felix J. Underwood, M.D.

MOUTH HEALTH ACTIVITIES IN MISSISSIPPI

The considerable number of dental defects disclosed through selective service examinations has brought into sharp focus the wide prevalence of such defects among the population of draft age individuals. That many of these defects might have been prevented had they received proper attention in early life, there can be no question. A number of factors are no doubt responsible, such as economic handicaps in obtaining professional care, lack of accessibility to a good dentist, poor dietary habits, ignorance, and lack of personal hygiene—much of which might be largely overcome through improved standards of living, a better distribution of dentists, and adequate and effective health education.

Mississippi has for many years had a very good program designed to promote better mouth health. Dr. William R. Wright, dental member of the Board of Health for the state-at-large, serving in this capacity since 1926, has given unstintingly of his time and abilities in furthering better mouth health for Mississippians. The close relationship of mouth health to general health and well-being is readily recognized in the public health program. Dentists and physicians acknowledge that they have much in common, so close is the relationship of dentistry to medicine. A broad knowledge of the important works in both sciences is essential to the rendering of good medical and dental care.

Worthy of more than passing note is the report of mouth health activities covering the period July 1943, to June 1945, submitted by Miss Gladys Eyrich, state supervisor of mouth health of the State Board of Health staff. "The aim of mouth health activities is to convince the people that it pays to have good mouths and to help them reach this goal," Miss Eyrich points out. Recent objectives have been: to increase the number of dental hygienists; to make dental hygiene a real part of county health departments and school programs; to supply sound mouth health teaching material; to supplement local funds for the correction of dental defects; and to work closely with organized dentistry both within and without the state.

When the mouth health program began in January 1923, it was planned as an educational program with the idea of using teachers and dental hygienists as the instructors. A law governing the practice of dental hygiene was passed by the legislature in 1922, and the first dental hygienist was brought into the state in 1924. It was never possible to secure as many dental hygienists as needed. In fact, during this biennium, the dental hygiene service was reduced to 46 per cent of that in the last biennium.

As an attempt to fill the need for mouth health workers, the State Board of Health offered in the summer of 1944, three scholarships of $1,000 each to college graduates for one year of dental hygiene study. Upon completion of the course, the applicant signs an agreement to work for the State Board of Health for three years after passing the State Board of Dental Examiners. A graduate of Mississippi Southern College who is a primary teacher, received the first scholarship and completed study in June 1945, at Temple University School of Dental Hygiene in Philadelphia.

Mouth health activities were conducted in forty counties by the mouth health supervisor and eight dental hygienists. The supervisor conducted inspections and instruction in twenty-one counties with especial attention to the urban schools of Hinds, Forrest, Jones and Pike. Three counties: Coahoma, Washington and Warren had well rounded programs with full time dental hygienists. A fourth hygienist, assigned to the northeastern district in June 1944, received or continued programs in ten of the nineteen counties. Three hygienists had the responsibility of six counties, with occasional brief assignments in other communities.

Work among the Negroes was conducted chiefly by a Negro dental hygienist who resigned December 1944. Inspections, instruction and prophylaxes were given to children during the school term and to teachers in the summer at normals and workshops. The white dental hygienist in Harrison County worked among Negro maternity cases at conferences. An all time high in good mouths was recorded by the dental hygienist in Leflore County when 80 per cent of 148 Negro preschool children were found to have mouths in good condition.

Inspections were made of 98,870 mouths; dental prophylaxis was given to 8,935 persons; 4,116 home visits were made; and 19,319 dental certificates of completed dental corrections were reported. Five schools were 100 per cent in dental corrections and three others were above 95 per cent. The 100 per cent schools were: Oakhurst in Clarksdale and all four elementary public schools in Greenville, where the Chinese school was the first to reach 100 per cent both years of the biennium. A photograph and an account of this accomplishment was sent to the dental director of Free China, and was published in the *Dental Survey,* the Journal of the Pierre Fauchard Academy. The 1944 senior class of Riverside School, Washington County, reached 100 per cent in dental corrections before graduation. Teacher and parent interest in classrooms completing their dental work has increased to the extent that 131 rooms secured all their dental certificates this biennium as compared with thirty in the preceding two years.

In the city of Jackson, school monthly progress cards carry notations about teeth: O indicates no progress; S indicates a dental appointment or slow progress; N shows a dental certificate or normal progress. This cooperation on the part of the elementary schools is largely responsible for the fact that many pupils bring two certificates yearly to school, and that six of the nine schools reached 74 to 91 per cent in good teeth by January.

The dental sections of five new elementary health texts were reviewed. An error and several misleading statements were brought to the attention of the publishers, who stated that the error would be corrected and other improvements made in the Mississippi books.

Dental health education materials have been kept up to date through the purchases or printing of four new booklets, two leaflets, a poster and two films. Much of the material is for use with teachers in the schools, other pieces are for parents, and some are used by dentists with their patients. Several thousand simple fliers on brushing were prepared for the Emergency Maternity and Child Care program. Teaching of mouth health and the effective distribution of literature have been facilitated by the workshops for teachers and courses for health educators, both starting in this biennium.

Dental clinics were served by sixty dentists in thirteen counties and included 827 children, the dentists working 316 hours at an hourly rate. The State Board of Health matched funds with the communities on a fifty-fifty basis. The Parent Teacher Associations, Pilot Club, Junior Auxiliary, American Legion, and Business and Professional Women's Club assisted in the work.

Through such a project reduction in tooth loss is indicated in Jackson. For nine years, the Pilot Club sponsored dental corrections for a small group of indigent children in Lee School. During dental inspections in September 1944, this school was found to have 3 per cent of the enrollment who needed extractions of permanent teeth as compared with 5 per cent of the enrollment in two other schools of a similar economic level.

Following a plan suggested by the American Dental Association for all state dental organizations, the Mississippi Dental Association has a Council on Dental Health, consisting of thirteen members; a chairman, and two dentists from each of the six district dental societies. The Council objectives include research in the cause of dental caries and the promotion of the state mouth health program.

Professional studies indicate that decay of the teeth, a bacterial disease almost universal in extent, may be controlled by systematic dental care combined with a diet low in sugars and starches. To become further acquainted with such a study, the Council chairman, five Mississippi dentists and the supervisor of mouth health attended a forum in New Orleans to hear the results of certain Michigan investigations. The Michigan conclusions on the cause and control of tooth decay have influenced several states to set up laboratory facilities to implement a dental caries control program.

Fluorine in drinking water to the amount of one part per million has been found beneficial to tooth formation. A concentration above 1:1,000,000 results in slight to marked mottling of tooth enamel. The district United States Public Health Service dental consultant, Dr. V. L. Hagan, made three visits to the state, and the dental surgeon of the United State Public Health Service, States Relations Division, Dr. John W. Knutson, made one. Both are interested in the fluorine possibilities. Dr. Knutson visited Scooba to observe the operation of the municipal filter which was installed several years ago to reduce the fluorine in the water to the safety line of one part per million. He saw forty mouths among high school pupils, found very little decay and only one child with mottled enamel.

Dr. Hagan spoke at state dental and public health meetings and visited the Newton County Experimental Rural Health Program in which four county dentists participated. The dentists expressed themselves as satisfied with the latitude given them in conducting their part of the program. The sponsors encourage necessary changes as experience and conditions indicate. The program has served more than one-half the population of the county, and the teeth of the children are greatly improved thereby.

* * * *

Miscellaneous News Notes

There have been several distinguished visitors to observe the state's public health program recently, among them, Dr. Yang-Shu-hsin, a physician from China, one time division chief of the Nanking Municipal Health Station and health commissioner of Kansu Province. At present he is a special member of the National Health Administration, and during his stay in Mississippi, he is giving attention to the study of local and state health department practices.

Visiting Mississippi to observe the maternal and child health program carried on by the State Board of Health are two prominent public health figures from South America, Dr. Jaime Ramirez of Sucre, Bolivia, and Dr. Manuel Salcedo of Lima, Peru. Dr. Salcedo is the able director of the National Service for Protection of Mothers and Children in the Ministry of Health and Social Assistance in Peru. His excellent training and progressive leadership lead to his being chosen as one of the child health experts to consult with the International Labor Office at its conference in recent session in Montreal.

The chief medical officer of the maternity and child health center at Chengtu, China, Dr. Mei-yu Cheng, is scheduled to visit Mississippi in the fall to study its public health program, particularly maternal and child health.

Woman's Auxiliary

President	Mrs. L. J. Clark	Vicksburg
President-Elect	Mrs. Stanley Hill	Corinth
First Vice-President	Mrs. H. C. Ricks	Jackson
Second Vice-President	Mrs. Henry Boswell	Sanatorium
Third Vice-President	Mrs. W. H. Anderson	Booneville
Recording Secretary	Mrs. Geo. W. Owens	Jackson
Fourth Vice-President	Mrs. Ben Walker	Jackson
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey Garrison	Jackson

CENTRAL AUXILIARY ENTERTAINS DOCTORS

Members of the Woman's Auxiliary to the Central Medical Society honored their husbands with the annual Doctor's Day party last Friday evening in the home of Col. and Mrs. Lawrence Long on Peachtree Street.

The entertainment this year, given by the members "as a gesture of appreciation to the doctors," was in the form of a buffet supper. Many lovely spring flowers were used throughout the home.

Receiving informally with Colonel and Mrs. Long were Dr. and Mrs. W. R. Bethea. Mrs. Bethea is president of the Auxiliary.

Mrs. A. G. Wilde served as general chairman of arrangements for the party, with Mrs. Harvey Garrison in charge of decorations. Others assisting were Mrs. J. A. Milne, Mrs. I. C. Huggins and Mrs. J. Walton Lipscomb.

Those present were: Colonel and Mrs. Long, Dr. and Mrs. W. R. Bethea, Dr. and Mrs. W. C. Thompson, Dr. and Mrs. H. C. Sheffield, Dr. and Mrs. A. G. Wilde, Dr. and Mrs. Robert Price, Dr. and Mrs. H. C. Ricks, Dr. and Mrs. George Owen, Dr. and Mrs. H. F. Garrison, Dr. and Mrs. J. Walton Lipscomb, Col. and Mrs. Daniel Campbell, Dr. and Mrs. J. T. Weeks, Dr. and Mrs. John Harter of Sanatorium, Dr. and Mrs. Percy Wall, Dr. and Mrs. Temple Ainsworth, Dr. and Mrs. John A. Milne, Dr. and Mrs. Peyton Greaves, Dr. and Mrs. I. C. Huggins, Captain and Mrs. Guilbeau of the Jackson Army Air Base, Dr. and Mrs. Felix Underwood, Mrs. Fred Hollowell of Yazoo City, Dr. and Mrs. Temple Moore, Dr. and Mrs. I. B. Trapp of Brandon, Dr. and Mrs. T. B. Holloman of Florence, and Dr. and Mrs. Gilruth Darrington of Yazoo City.

DR. F. G. RILEY'S HOSPITAL & CLINIC
21st Ave., and 11th St.

F. G. Riley, M.D., F.A.A.P.
Practice limited to Pediatrics

R. L. Rhymes, B.S., M.D., F.A.C.S.
General medicine and surgery, especially Pediatric Surgery

Meridian, Mississippi

HOWARD MAHORNER, M.D.

927 Canal Bldg.
New Orleans, Louisiana
—SURGERY—

PHYSICIAN WANTED: Physician for industrial dispensary in South. Must be graduate Class A school. Please write details and give references in first letter. Expenses of interview will be arranged for satisfactory applicants. Write to Medical Director, Box 590, Knoxville 5, Tennessee.

Just

a

MINUTE DOCTOR!

I know you're rushed these days, but have you ever stopped to think about how I am making much of your work easier and better? In the home or in the hospital, you'll always find me on the job. I'm glad to have a part in promoting good health, and believe you'll agree that I am the most economical assistant you have. And the best part of it all is—we both give good service under the free enterprise system!

Your Electric Servant,
REDDY KILOWATT

Mississippi Power & Light Company

Helping Build Mississippi

Relief!

HAY FEVER

RHINITIS

CORYZA

BRONCHIAL ASTHMA

EU-PHED-ITAL tablets contain an effective combination of drugs that act synergistically to give symptomatic relief. Acute paroxysms—mucous tissue congestion and swelling—bronchoconstriction—all are relieved by oral administration of Warren-Teed Eu-Phed-Ital.

Each EU-PHED-ITAL tablet contains: Phenobarbital Sodium 1/2 gr. (Derivative of Barbituric Acid)—Ephedrine Sulfate 1/2 gr.—Extract Euphorbia Pil. 1 1/2 grs. Creased tablets permit flexibility of dosage.

W BY ANY TEST Pharmaceuticals

WARREN-TEED

Medicaments of Exacting Quality Since 1920

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

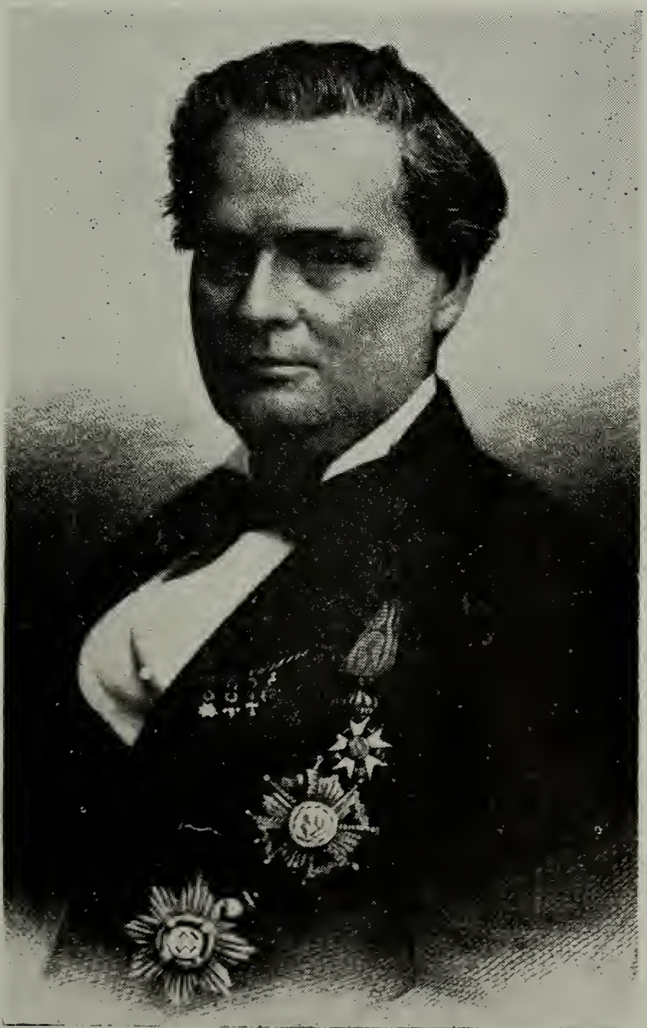
Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Marion Sims and Other Nineteenth Century Pioneers: the Dawn of Scientific Medicine and Surgery

SEALE HARRIS, M.D.
Birmingham, Alabama

PART I

One hundred years ago in the then small city of Montgomery, Alabama, Dr. James Marion Sims was performing miracles with scalpels, scissors, needles, silk and silver wire sutures. Practicing surgical cleanliness, his methods approached the aseptic technique of the present time. He invented instruments that revolutionized surgery. He devised and perfected operations that cured women of the accidents of childbirth from which they had suffered, without relief, since Eve ate the forbidden fruit in the Garden of Eden.



James Marion Sims
(1813-1883)

Sims was the pioneer in scientific surgery of Alabama. Seeking a larger field of usefulness, he moved to New York in 1853, where because of professional jealousy, he was denied the privilege of operating in hospitals. Without friends, money or prestige, he founded the Woman's Hospital; and soon his operating room was the mecca for medical students and physicians in the great metropolis. He towered above his adversaries as Saul did above Israel, and after one year of practice in New York, he ranked as the greatest American surgeon.

Then on to Paris in 1861 where he practiced surgery for ten years, having among his patients Empress Eugénie. While treating her, he lived in Saint Cloud, the summer palace of Napoleon III. He performed operations successfully which startled and delighted French physicians; and in less than one year after he arrived in Paris, he became the foremost surgeon on the continent of Europe. In 1870 he volunteered for service and was commissioned a colonel in the French Army in the Franco-Prussian War.

As surgeon-in-chief of a French army hospital at Sedan, his technique in gunshot wounds of the abdomen differed but little from that by American surgeons in World War I and World War II.

Back to New York in 1872, with the prestige of unprecedented success in Paris, he again assumed leadership in surgery in the medical center of the United States. Though his envious colleagues tried to destroy him the second time, he was accorded every honor in the gift of the medical profession in his homeland. For the last ten years of his life, James Marion Sims was revered as the greatest surgeon in the world. On November 12, 1883, at the age of seventy, he spent a busy day in his operating room. Included in his operations was a difficult and successful surgical procedure on the wife of a prominent New Yorker. After dinner with his family Sims said: "This has been one of the happiest days of my life." That night about eleven o'clock when he returned from a visit to the hospital he complained of a slight chill. Four hours later, he awakened startled, called Theresa, his adored, talented and beautiful wife, who had been comrade, inspiration and full partner throughout his professional career, —and without a struggle died in her arms. The ancient Greeks believed that sudden death is reserved for the favorites of the gods.

For drama, romance and achievement, the meteoric career of James Marion Sims is without parallel in the annals of medicine.

James Marion Sims was born January 25, 1813. He died on November 13, 1883. He was one of a few pioneer doctors, who, in three or four decades of the 19th century added more to the basic knowledge of medicine and surgery then had been accumulated in the thousands of years that had passed since man was known to inhabit the earth. Measured in terms of lives saved, the sum of the achievements of a dozen men, contemporaries of Sims, has been the greatest boon to the human race in the history of mankind. Untold millions of men, women and children now living, and yet unborn, will enjoy health and happiness throughout long, useful lives because a few geniuses had the vision to interpret correctly phenomena related to various diseases, and dared to achieve seemingly impossible tasks. They were the medical master builders, who drew the plans, laid the foundations, built the frame work and placed the keystone in position of the structure upon which modern medicine and surgery have been built—but the building is far from being ready for the capstone. Medicine is yet a long way from being an exact science.

Medicine as Practiced in the First Half of the nineteenth century when bleeding, blister- the history of medicine were in the first half of the Nineteenth century when bleeding, blistering, puking and purging were practiced. The armamentarium of a doctor of that time consisted of a lancet for venesection and opening abscesses; cantharides for blisters—and as an aphrodisiac (?); ipecac, squills, antimony, (tartar emetic), stramonium, mercury, digitalis, opium and a few other drugs—all of which were used empirically.

Malaria: While cinchona bark had been introduced into Europe in the seventeenth century, its alkaloid, quinine sulphate, was not isolated until the early part of the nineteenth century. Quinine was not in general use in the United States until after 1850. Hundreds of thousands of citizens of the new republic died of malaria in the first half of the nineteenth century. Sims said of the treatment of malaria before quinine was available: "Patients were bled, purged, administered tartar emetic, and given fever mixtures every two hours day and night; they were salivated, and they died. Those who were bled and purged the strongest died the quickest."

A few years later when quinine came into general use in Massachusetts, Oliver Wendell Holmes, contemporary with Sims, in picturesque language cried out against the heroic treatment of malaria then generally practiced. He said: "What wonder that the stars and stripes wave over doses of ninety grains of quinine and that the American eagle screams with delight to see three drachms (180 grains) of calomel given at a single mouthful."

An epidemic of malignant malaria, described by Sims, probably caused the deaths of at least half the settlers in, and near, Mount Meigs, Alabama, in the summer and fall of 1836. After having witnessed the deaths of many of his friends and patients from malaria, Sims himself contracted the disease and went to bed, expecting to die. He refused to be bled, puked and purged. His life, therefore, was prolonged for a few days, when a druggist from Montgomery, who had a few doses of quinine in his satchel, chanced to be in Mount Meigs. He gave his quinine to a doctor whom he had never seen before, and thus saved the life of a man who later made discoveries that brought health and happiness to millions of others. Sims was "snatched from the grave" the second time in 1840, when Dr. Holt of Montgomery brought quinine to him at Shorters, Alabama, where he had another attack of malignant malaria.

Smallpox. In the eighteenth century smallpox prevailed all over the world, even in remote islands. George Washington developed smallpox in 1751 at Bridgeport on the little island of Barbados in the West Indies, whence he had carried the half-brother, Lawrence, in quest of a cure for tuberculosis. He said in his diary that he "was strongly attacked with smallpox". Rupert Hughes, in his biography of Washington said: "When one imagines what a difference it meant to the world whether or not the young Virginian, gasping in the remote little island, should join the throng graveward, or should recover, the name of Dr. Landham [the doctor who treated Washington], should not be forgotten. Washington survived and the immunity to further attacks of smallpox was of infinite value to him all his life. But his face was thereafter pitted, as at least one-third of the faces in antivaccination days; yet, Weems, who knew him, assures us that the smallpox 'marked him rather agreeable than otherwise'.

Smallpox was prevalent in some of the sparsely settled American colonies at the outbreak of the Revolutionary War. When the Colonial Army collected many men together it became a scourge among the soldiers of both the American and British armies, particularly in prison camps. Of 20,000 American slaves, captured by the British and who were kept in concentration camps, it is estimated that 15,000 died of smallpox. During the Revolutionary War an epidemic of smallpox in South Carolina caused the deaths of more soldiers in that state than were killed by the British Army.

Lord Cornwallis' troops overran Lancaster County, South Carolina—in which twenty-five years later Marion Sims was born—and captured many colonial soldiers, some from the army of the intrepid General Francis Marion, "the Swamp Fox" of Revolutionary fame—for whom Marion Sims was named. These captured soldiers, and many civilians, revolutionary sympathizers, were sent to a British prison camp in Columbia, South Carolina. Included among them were neighbors and relatives of the Jackson family in the Warsaw settlement, then the headquarters of General Cornwallis. The mother of President Andrew Jackson, who at that time was a boy fourteen years of age, though she knew that it meant almost certain death, volunteered to serve as a nurse to aid in caring for colonial soldiers stricken with smallpox in the British prison camp at Columbia. Sarah Jackson contracted smallpox and died. She was one of the casualties, and a heroine, of the fight for freedom by liberty-loving Americans. This episode is mentioned because it brings out something of the background of Marion Sims. The Jacksons were distant neighbors of Sims' grandfather and grandmother.

Edward Jenner. One bright spot on the horizon before the dawn of scientific medicine was the discovery by Edward Jenner (1749-1823) that the inoculation of humans with the virus of cowpox would prevent smallpox. Jenner's announcement of his great discovery, in 1798, came too late to save many thousand early Americans, and it came after smallpox had destroyed at least one-fourth the population of the British Isles and the continent of Europe; but vaccination was generally practiced in the United States in the early years of the nineteenth century.

Marion Sims was ten years old when Edward Jenner died in 1823. Jenner left vaccination as a legacy to billions of human beings who would live after him. Marion Sims was one of his legatees. Vaccination probably saved his life when he, then a medical student in Philadelphia in 1826, nursed a fellow-student, day and night, for a week before he died of a virulent form of smallpox. It is not possible to estimate how many men and women who have made great discoveries, have been saved to civilization because a country doctor in England interpreted the phenomenon of immunity to smallpox among dairy-maids, to mean that the inoculation of human beings with the virus of vaccinia (cowpox) would render them immune to variola (smallpox).

Deadly Surgery. When Marion Sims was graduated from Jefferson Medical College in Philadelphia in 1836 the surgery then practiced was crude and murderous, though only minor operations were attempted. The lancet, a small, very sharp, double-edged, folding knife, kept in the doctor's vest pocket when not in use, was probably the deadliest instrument ever devised by man. From the first day it was used by a doctor to open an abscess, it carried pyogenic bacteria to infect the wounds inflicted by him on his trusting patients, until palsy, or death, came to end the career of its well-meaning owner.

Next to the surgical instruments used by physicians from 1800 to 1865, the doctors themselves transmitted deadly germs from one patient to another, on their hands and clothes. It is probable that in the dark days of the first half of the nineteenth century doctors killed more of their patients than they cured. Physicians of that period were as able and as conscientious practitioners as they are of this day of scientific medicine and surgery. They applied the medical knowledge then available to them, and they are not to be blamed for the tragedies of the sick room that occurred in that black era of medicine. They did their best—"and an angel could do no more."

But there lived in the first half of the nineteenth century many doctors who realized the menace to their patients resulting from the medical and surgical treatment of the sick as then practiced. They were dissatisfied with themselves and disgusted with medicine and surgery; they began to doubt the teachings of the so-called authorities who wrote the textbooks and to think for themselves.

Ephraim McDowell. No surgeon had dared to invade "the sacred precincts" of the abdomen until Ephriam McDowell (1771-1830), pioneer doctor, removed an abdominal tumor weighing 22 pounds from Jane Todd Crawford, in his own home at Danville, Kentucky, in 1809. While he was operating, a number of protesting neighbors waited outside his house to hang McDowell had Mrs. Crawford died from the unheard of procedure. Fortunately she lived. Dr McDowell found his (now famous) patient up making her bed on the fifth postoperative day. She went home, sixty miles, on horseback on the twenty-fifth day. She lived to be seventy-nine years of age.

McDowell waited seven years, until he could add two other successful cases, before he published a report of his operation in the *Eclectic Repertory* in 1817. An envious and jealous doctor published an article later in the same journal in which he expressed doubts of McDowell's veracity. McDowell's reply, published in 1819, in which he added reports of two other successful cases, was convincing; but during his lifetime, "the father of abdominal surgery" received no credit from American and British surgeons for his great achievement. Half a dozen surgeons attempted the operation, but most of their patients died of general peritonitis. In 1841 the Atlee Brothers of Lancaster, Pennsylvania, operated successfully on a woman who had an abdominal tumor, and they gave full credit to Ephraim McDowell for his pioneer surgery of the abdomen.

McDowell's operation was attempted by John Lizars in Edinburgh in 1823 but he failed to find a tumor. In publishing a report of his case, Lizars included a review of McDowell's cases. In 1829, a year before his death, McDowell had a record of eleven operations for ovarian tumors with only one death. Had he been operating in a city hospital, in which at that time infections almost invariably followed every kind of surgical procedure, his operative mortality probably would have been a hundred per cent.

In 1842, eleven years after Ephraim McDowell's death, and thirty-three years after his first ovariotomy, Charles Clay of Manchester, England, successfully removed an ovarian tumor. To the British he is "the father of abdominal surgery"—even though the facts of McDowell's successful operations three decades before were submitted to English gynecologists.

The Discovery of Anesthesia. The progress of surgery had been stifled for centuries because the torture of the victim of any kind of an operation made it impossible to attempt anything but emergency surgery. The discovery of anesthesia therefore was the first step in the development of modern surgery.

The first physician to perform a surgical operation in which the patient suffered no pain was Dr. Crawford W. Long (1815-1878), who lived in the village of Donaldsville, near Athens, Georgia, in 1842. To amuse his friends, Dr. Long gave what he called "ether frolics" in his office. On such occasions after inhaling a few whiffs of sulphuric ether, the young folk became acutely intoxicated. They would fall over chairs and do many queer, laughable things. Sometimes they sustained large bruises when they were under the influence of ether. After recovering consciousness they did not remember feeling any pain from such injuries. It occurred to Dr. Long that surgical operations could be performed without pain if the patient were etherized. His first operation on a patient under the influence of ether was the removal of a tumor from the neck of James Venable in 1842. During the same year he performed several other operations with the patients under the influence of ether.

Unfortunately Dr. Long did not publish a report of his cases until after Dr. Horace Wells 1815-1848), a dentist of Hartford, Connecticut, had used nitrous oxide to prevent pain in the removal of a tooth in 1844; and William Morton (1819-1868) had used ether in an operation performed by Dr. Warren, senior surgeon of the Massachusetts General Hospital in Boston, in 1846. Had Dr. Long reported his operations on etherized patients he would have had the indisputable credit for the discovery of surgical anesthesia; and he would have prevented one of the most discreditable controversies in the history of medicine. The facts of this controversy were as follows: William Morton was a student of dentistry under Dr. Horace Wells when the latter first used nitrous oxide gas for the painless removal of a tooth. Later at Harvard, where he was studying medicine, Morton learned from Dr.

Charles Thomas Jackson (1805-1880) that sulphuric ether had properties similar to nitrous oxide—Jackson also claimed to have suggested to Morse the principle of the telegraph.

After the widely publicized operation under ether at the Massachusetts General Hospital, Morton applied for a patent on the well-known drug, ether, under the trade name of "letheon." He then announced to dentists and doctors: "I am now fully prepared to dispose of licenses to use my invention and apparatus in any part of the country upon the following general terms:

"TERMS FOR DENTISTS (five years)

In cities of 150,000 inhabitants, $200;
In cities of 50,000, and less than 150,000; $150;
In cities of 40,000, and less than 50,000, $100;
In cities of 30,000, and less than 40,000, $87;
In cities of 20,000, and less than 30,000, $75;
In cities of 10,000, and less than 20,000, $62;
In cities of 5,000, and less than 10,000, $50.

"Surgeons' licenses for five years, 25 per cent, on all charges made for performing operations wherein the discovery is used, etc., etc.

"W. T. G. Morton"

Wells accused Morton of "stealing" his discovery of anesthesia. Morton and Jackson had a quarrel in their effort to commercialize ether and dissolved partnership. Jackson claimed that he had "invented" anesthesia—that he had given the idea to Morton was not denied. He then joined Wells in the effort to discredit Morton. Morton failed to get a patent on "letheon" and applied to Congress for an appropriation of $100,000.00 for the privilege of using ether in the United States Army and Navy. In the meantime the controversy raged among the doctors of Boston and unethical conduct was charged against Morton. Morton and Jackson presented their claims to priority of the discovery of anesthesia to a Congressional committee. The acrimonious and vituperative testimony to discredit Morton covered fifty-seven pages of the *Congressional Record.* The tricornered fight raged in Congress until a senator from Georgia presented proof that Crawford W. Long had used ether in operations two years before Wells had used nitrous oxide, and four years before Morton had used ether. Whereupon a disgusted Congress killed the bill to reward William Morton for the discovery of anesthesia.

Oliver Wendell Holmes (1809-1894) coined the noun "anesthetic" to define the substance used in producing what he called "anesthesia." During the controversy which raged between Morton and Jackson, Holmes, when asked to whom should be given the credit for discovering anesthesia, replied: "To e(i)ther."

The lives of Wells and Morton became embittered, and their usefulness was largely destroyed, because of their hatred for each other, and their eagerness for fame. Wells in an attempt to produce surgical anesthesia with nitrous oxide caused the death of a patient on the operating table. A few years later he ended his unhappy life by severing his radial artery. Morton neglected his practice and became poverty-stricken to the extent that his friends had to aid in the support of his family. Disappointed and miserable he died of apoplexy at the age of fifty-one.

A statue of Crawford W. Long stands in the Congressional Hall of Fame, in Washington, presented by his native state of Georgia; and his Alma Mater, the University of Pennsylvania, had a tablet placed in one of the buildings, commemorating him as "the discoverer of anesthesia." In Hartford, Connecticut, there is carved on the granite pedestal of a statue, the name of Horace Wells, "the discoverer of anesthesia." In the Massachusetts General Hospital in Boston there is a tablet in memory of William Morton, "discoverer of anesthesia." In Germany there is, or was in 1906, a statue erected to proclaim to the world the name of the German "discoverer of anesthesia."

Who discovered surgical anesthesia is of less importance that the fact that it was discovered. It has revolutionized the practice of surgery, and has alleviated the sufferings of untold millions, many of whom without it, would have been denied life-saving surgical operations.

Chloroform. Morton deserves credit for being the first to report a successful operation under the influence of ether. The news traveled fast around the world with far-reaching effects. In less than a year later, in 1847, Sir James Simpson (1811-1870), professor of medicine and obstetrics in the University of Edinburgh, tried ether to deaden the pains of childbirth. The odor of the ether and the first stage of intoxication was so disagreeable to the patient that she could not be completely anesthetized. Simpson, one of the great medical pioneers of his time, discovered that chloroform was pleasant to take, and that its effects were quicker and more profound than ether. Simpson used chloroform in a difficult case of labor with such happy results that he published a report of this case a few weeks later. His discovery brought the denunciation of the clergy on his head for interfering with God's edict (?) that "in sorrow thou shalt bring forth children." But Simpson's head was not defenseless. His replies to the clerics, and to Dr. Meigs of Philadelphia, and other conservative doctors who joined in the wordy opposition to the use of chloroform in labor, silenced them and other critics. In less than two years chloroform had been used on 50,000 persons in Edinburgh alone. Howard W. Haggard, author of *Devils, Drugs and Doctors,* in describing the controversy over the use of chloroform in childbirth gave to medical literature one of its most dramatic chapters.

But Simpson's discovery of chloroform anesthesia was not altogether a benevolent accomplishment. While it may be a comparatively safe anesthetic for women in parturition, since few fatalities have been reported from its use, it has caused more tragedies in the operating room than all the other anesthetics combined.

Dr. Sims was one of the first to call attention to the high mortality from the use of chloroform, which even in the United States where the use of ether as an anesthetic was discovered, because of the ease of the administration, was widely employed in surgery. In Europe chloroform was used almost altogether. Dr. Sims in his autobiography gave a dramatic account of a near fatality from chloroform in an operation which he performed in Paris in 1861, for vesico-vaginal fistula on a very rich and important patient of Nelaton, the then premier surgeon of France. Fortunately for Sims the patient survived; the operation was completed, and the woman cured. In discussing this case Sims said: "Deaths from it (chloroform) in general surgery occur constantly, and for unimportant operations." He concluded: "I think the safest plan is to relinquish the use of chloroform altogether except in obstetrics. The frequent cases of death from the use of chloroform in surgical operations that have occurred among us should warn us to give up this dangerous agency, if we can find another that is efficient and at the same time free from danger. Ether fulfills this requisite to a remarkable degree; but while it is safe, it is offensive to the physician and bystanders as well as to the patient. Chloroform is delicious and dangerous; ether is disagreeable and safe in purely surgical cases."

Sims protested against the use of chloroform for thirty years before his death in 1883, and he endeavored to find a substitute for chloroform and ether. He tried nitrous oxide in 1868—and published an article in the *British Medical Journal,* setting forth the advantages and the imperfections of the anesthetic discovered by Wells in 1844. In 1874 he read a paper before the British Medical Association, published also in the *American Journal of Medical Sciences,* in which he called attention to the hazards of chloroform anesthesia, but described Nelaton's method of resuscitation in the event of threatened danger during its administration.

Sims had never heard of Dr. Crawford W. Long until in October 1876, when Dr. P. A. Wilhite of Anderson, South Carolina, informed him that in 1842, when Dr. Crawford W. Long was his preceptor in the study of medicine, he had assisted him in the first operation ever performed under the influence of ether. Dr. Wilhite also said that he had administered ether to several patients operated upon by Dr. Long in 1842, 1843 and 1844. On further investigation Sims became convinced that credit for the discovery of ether as a surgical anesthetic should be given to Dr. Long. In 1877 he prepared an article in which he listed Long as the discoverer of ether in 1842, and Horace Wells as the discoverer of nitrous oxide anesthesia in 1844. He felt that Morton should be credited with having brought the attention of the medical profession to ether as a surgical anesthetic. He personally raised a considerable sum of money from among his surgical friends and sent it to Dr. Long, then an old man living in Athens, Georgia, as an expression of appreciation for his discovery of ether as an anesthetic. Crawford W. Long died in 1878. The following year Sims published an article on "History of the Discovery of Ether," in which he insisted that Long was the discoverer of surgical anesthesia.

Sims continued the search for a safe anesthetic without the disagreeable effects of ether. He was induced to try bromide of ethyl. The patient died a few days later from acute nephritis, which Sims thought was induced by the use of bromide of ethyl. He reported the case at a meeting of the New York Academy of Medicine in 1880. The paper was published in the *Medical Record and Gaillard's Monthly.*

In spite of the crusade by Sims against the use of chloroform in surgical anesthesia it was in general use in the United States until the first decade of the twentieth century, and even now it is preferred by a few surgeons of limited experience. It may not be inappropriate to mention that in 1901, my son, then an infant, eighteen months old, was almost killed by a hospital interne, who was not aware of the danger from chloroform. Dr. Bodine in the Polyclinic Hospital—founded by Sims' son-in-law, Dr. James A. Wyeth—was performing a simple circumcision. I saw that the child was getting too much chloroform but the interne poured more on the inhaler. I caught his arm and prevented him from placing it on the child's face. At that moment Dr. Bodine saw that the child had stopped breathing and was deeply cyanotic. He saved his life by catching him by the feet and hanging his head down while artificial respiration was performed—the Nelaton method which Sims brought back from Paris. In a few minutes the child was breathing again and the operation was completed.

Even after that near tragedy I preferred chloroform as an anesthetic, believing that the accidents resulted from its improper administration. My associate, using the drop method, could keep an adult anesthetized for two hours with less than two drachms of chloroform. In 1904 a strong husky man, thirty years of age, walked from his home to the hospital for an elective minor operation. After inhaling a few drops of chloroform he became livid and stopped breathing. In spite of prolonged efforts at resuscitation he never breathed again. He evidently died instantly of heart failure. This tragedy incited me to investigate the mortality of chloroform anesthesia in Alabama. Questionnaires sent to a large number of physicians revealed that at least one person out of a hundred on whom chloroform had been used by capable Alabama physicians, died—usually after inhaling a few drops of chloroform. So many doctors in Alabama had had deaths from chloroform, they abandoned its use. Chloroform was the anesthesia of choice in Europe as late as 1906. The United States Government prohibited the manufacture of heroin years ago because it was a dangerous habit-forming narcotic. Many lives could be saved if chloroform could be thrown in the waste basket of drugs that have been tried and found too dangerous for use in medicine and surgery.

Oliver Wendell Holmes. Another of the pioneers searching for light and not afraid to tell the truth, was Oliver Wendell Holmes, who was born in Boston in 1809, four years before the birth of James Marion Sims. Holmes' great contribution to medicine was in 1843 when he proved that childbed fever is a contagious disease, and that it is transmitted from patients with puerperal fever, erysipelas and infected wounds, to women in labor through the medium of the hands and clothes of doctors and midwives. That was two decades before the Hungarian-born Ludwig Semmelweis (1818-1865) began to investigate the appalling conditions in the obstetrical wards of Vienna hospitals and to search for causes of the frightful death rate among women confined in them. It was more than a quarter of a century after Holmes' paper on puerperal fever was published before Pasteur proved his germ theory of disease.

Holmes reported a number of small epidemics of 'childbed fever" in the practice of individual doctors. He admitted his belief that he, himself, had been responsible for the death of women whom he had delivered. He advocated thorough cleansing of the hands and a change of clothes before attending any woman in labor; and asserted, with emphasis, that a physician who was treating a case of childbed fever, erysipelas or an open wound should not be permitted to attend a woman in labor.

Holmes' paper made but little impression on the medical profession generally; but it brought forth the condemnation of the obstructionists to medical progress, particularly Dr. Charles Meigs, professor of obstetrics in the University of Pennsylvania. Meigs condemned Holmes' article as a reflection on the cleanliness and integrity of doctors, and he ridiculed his theory in general. Holmes' reply, characteristically rhetorical, scintillated with satire. Apparently the controversy between Holmes and Meigs created a sensation in medical circles at the time; but the reforms advocated by Holmes intended to reduce the number of deaths from puerperal fever were not taken seriously by the American physicians and his methods were not carried out, except by the friends and admirers of the Bostonian doctor.

Ludwig Semmelweis. Apparently Holmes' theory of the contagiousness of puerperal fever was unknown to European doctors when Ludwig Semmelweis, in Vienna, in 1847-1849, attacked the "childbed fever" problem from a different approach. He proved that medical students, who worked in dissecting halls before attending charity cases of obstetrics, were largely responsible for the high mortality in the lying-in wards of hospitals connected with the University of Vienna. Semmelweis also proved that the dirty linen and filth in hospital wards were a factor in disseminating puerperal fever. He was demoted because the reforms he advocated would cut off petty graft in the hospital laundry; but not until he had called attention to the fact that in the wards in which medical students worked there were from 68 to 158 deaths in each 1000 births, while another ward in which the women were delivered by midwives the mortality rate was 33 deaths in 1000 births. The great Viennese doctor finally concluded that puerperal fever in Vienna hospitals was due to blood poisoning, transmitted by the unclean hands of medical students, midwives, and doctors, and by the use of dirty linens, and the generally filthy conditions in the lying-in wards of the hospitals.

Semmelweis, like every other man who has brought about benevolent reforms, was persecuted for being a progressive. His envious and jealous confrères made every possible effort to destroy him, but he succeeded in having the obstetrical wards renovated. He saw to it that they were supplied with clean bed-linen; that women were required to bathe, and they were provided with a freshly laundered gown at the beginning of labor. He instructed medical students not to go from dissecting rooms to the obstetrical wards of the hospital without a complete change of clothes; and he required each student to wash his hands thoroughly with soap and water and then in a solution of chloride of lime before making examination of women in labor.

At the time Semmelweis began his reforms, approximately one out of every eight women who were delivered of babies in the Vienna hospitals, died of puerperal fever. In seven months the number of deaths in the same obstetrical wards dropped to one in eighty-five women delivered. In one hospital division there was not a single death from puerperal infection in two months. In spite of his triumph in saving the lives of parturient women, Semmelweis tired of the struggle, and disgusted with the tactics of his confrères, left Vienna and returned to his native city, Budapest, in 1855. There he wrote a book, *The Aetiology, Concept, and Prophylaxis of Childbirth Fever,* which gave to the world methods of preventing puerperal fever—essentially asepsis in the management of labor—that revolutionized the practice of obstetrics and has saved the lives of millions of mothers. Semmelweis died at the age of forty-seven, from septicaemia, resulting from an infected finger—the disease which he sought to prevent in mothers as they brought their children into the world. Semmelweis' life was turbulent and unhappy. He died without realizing that he had achieved more for the good of mankind than all of the kings, queens and emperors of Austria and Hungary. His name will be revered when Maria Theresa, Francis Joseph and all the other rulers of the House of Hapsburg have been forgotten.

Sims, the Father of Gynecology. Marion Sims' greatest achievement, though not his only important contribution to scientific surgery, was in devising an operation for vesico-vaginal fistula, then considered an incurable condition. The scientific management of diseases of women had its origin in Montgomery, Alabama, when the Sims' speculum was invented. It gave the surgeon perfect visualization of the vesico-vaginal and recto-vaginal septa, and the cervix of the uterus. Without this discovery the accurate diagnosis and adequate treatment of diseases of women could not have been possible.

Sims' simple story of the incidents that led up to his undertaking and operation for vesico-vaginal fistula, the delineation of his failure for four years, and the final success of his efforts to relieve this hitherto hopeless condition, make one of the most thrilling chapters in medical literature. It was an accident that Sims, in the course of six weeks, was called upon to treat three cases of vesicovaginal fistula in slaves, who because of their disability were hopeless invalids and valueless to their owners; but the perfection of the operation was the result of definite ideas of the problems involved in devising a cure for vesicovaginal fistula, combined with infinite patience, courage and perseverance.

The success of Sims' operation for vesico-vaginal fistula depended upon his ingenuity in devising a number of instruments and in perfecting procedures in vaginal surgery that never before had been achieved. The first step followed the accidental discovery in the examination of a woman who had been thrown from a horse, that atmospheric pressure will balloon the vagina, so that the vesicovaginal septum may be clearly visible for operation. Sims first used the handle of a pewter spoon to open the vagina to atmospheric pressure, and to hold it open, and then he invented his speculum, which has not been improved up to this time. He then devised a retention catheter to drain the bladder and prevent its distention by urine. The third step was to use the silver wire suture, instead of silk; and the fourth was the use of perforated shot to hold the sutures in place.

It required several failures in operating upon Anarcha, Betsy and Lucy, before improved methods had corrected the faults in technic of former operations; but Sims did not despair as did his associates and some of his relatives, who begged him to devote himself to patients who could pay instead of breaking down his health from overwork in quest of the impossible. But genius is not easily discouraged and Sims continued until May, 1849, when with "palpitating heart and anxious mind" he found that he had cured Anarcha—the first time in the history of the world that an operation for vesicovaginal fistula had been performed successfully.

Sims' exuberant gratification at his success was pardonable. It was expressed as follows: "In the course of two weeks more, Lucy and Betsy were both cured by the same means, without any sort of disturbance or discomfort. Then I realized the fact that, at last, my efforts had been blessed with success, and that I had made, perhaps, one of the most important discoveries of the age for the relief of suffering humanity."

Slave Heroines. It was fortunate for Sims that his first three patients, Anarcha, Betsy and Lucy, were Negro slaves, who by heredity and environment made ideal subjects for experimental studies such as he carried out on them for four long discouraging years. Sims performed thirty operations without an anesthetic on Anarcha alone before she was cured. Livingstone maintained that the Negroes in their native Africa stood pain better and endured punishment of all kinds with greater fortitude than civilized people; and Rudolph Matas, Hunter McGuire and other surgeons have stated that the American Negroes are stoics in standing pain and that they make better surgical subjects than the whites. The training as slaves made Anarcha, Betsy and Lucy submit without question to the commands from their masters to allow Dr. Sims to perform any necessary operations; and the hope of relief from the dreadful conditions resulting from vesicovaginal fistulae, no doubt made them willing subjects for experimentation. Many Europeans berated and ridiculed Sims for cruelty to helpless slaves.

Sims relates that Anarcha, Betsy and Lucy had kind masters; and no doubt Sims treated them with as much consideration as he did his patients, the Duchess of Hamilton, the Empress Eugénie of France and the Empress of Austria. Sims maintained these three slaves in his hospital and treated them for four years without pay or hope of reward, other than the satisfaction of curing the most dreadful condition known to woman, and the hope that he might find the way to relieve others. Sims was discouraged but Anarcha cried and begged him to "try, please try one more time!" Never in history has there been another instance of such devotion to duty and the cause of science. Anarcha, Betsy and Lucy should be immortalized as the first heroines in the story of the development of modern gynecology; just as Jane Todd Crawford in the pioneer days of Kentucky will be revered always in the memory of men and women along with Ephraim McDowell, the founder of abdominal surgery.

Claude Bernard. When Marion Sims was in Paris from 1861 to 1870, the French capital was the medical center of the world. Among the great Frenchmen of the time was Claude Bernard, the aristocrat in medicine. He was born in 1813, and therefore like Marion Sims, was forty-eight years of age in 1861. Claude Bernard was working in the most complete physiological laboratory in the world at that time, except perhaps that of Carl Fredrick William Ludwig (1816-1895) of Leipzig, Germany, whose vast studies on circulation supplemented those of the great Harvey.

Claude Bernard accidentally found sugar in the hepatic vein of a man, upon whom an autopsy had been performed. This he interpreted as meaning that the liver produces, stores and releases glycogen, which when carried in the blood to every part of the body and burned, produces heat and energy—and he proved his premise. His studies on diabetes stimulated many other laboratory investigations to seek for the cause of that fatal disease. These studies culminated in Von Mehring and Minkawski producing diabetes mellitus in dogs by removing the pancreas in 1888; and the discovery of insulin by Frederick Grant Banting, an obscure Canadian doctor, and his co-worker, Charles Herbert Best, a sophomore medical student, in the physiological laboratory of the University of Toronto in 1921. Thus scientific medicine conquered a disease that baffled physicians from the time when Aretaeus, the Cappadocian, first described and named diabetes mellitus in the second century of the Christian era. Claude Bernard was the pioneer in blood chemistry and in physiological investigations in nutrition.

Virchow. Rudulf Virchow (1821-1902) was the noblest German who has ever lived, and one of the greatest men of all time. He accomplished more to develop the scientific diagnosis of disease as now practiced than any other of the great pioneers of his time. Before Virchow was thirty-five years old he had completed microscopical studies on the tissue cells of various organs that led to a comprehensive knowledge of disease processes. He developed methods of diagnosis which made the microscope and laboratory indispensable in medical and surgical practice. When his greatest work, *Die Cellular Pathologie,* was published in 1856, it changed the physician's concept of disorders of the human body from guesswork to exact knowledge of the marked changes that take place in disease. Virchow lived to know that laboratories, equipped to use his methods of tissue diagnosis and study of disease, were established in every large hospital in all the civilized nations of the world.

The late Sir Frederick Banting, who achieved fame in his brilliant researches that culminated in the discovery of insulin, said that the Germans can be credited with few original ideas, and that they discovered scarcely one basic principle; but they were masters in developing, and improving upon, the ideas which they appropriated from others. Virchow developed cellular pathology into a science; but the idea originated in the discovery by Robert Hooke, in the seventeenth century, that plants are made up of microscopic cells. In 1815 Robert Brown, a botanist, discovered a nucleus in each cell. Bichat, French anatomist, made the first microscopic studies of animal tissue under the microscope in the eighteenth century. He described twenty-one distinct types of tissues, or "membranes." Bichat concluded that "disease must ultimately be some change in one or more kinds of tissue."

Schleiden, of Hamburg, in 1838 confirmed the work of Robert Brown and he expressed the belief that the nucleus is essential for the reproduction of like cells in plants. Theodor Schwann extended the work of Schleiden and proved that "all vegetable and animal tissues are composed of and developed from cells." Hagensen and Lloyd, in *A Hundred Years of Medicine* asserts that "it was Rudulf Virchow the most influential of all Germany's medical thinkers, who applied the discoveries of Hooke, Schleiden and Schwann to the intimate study of disease." Virchow must be credited with developing the science of pathology.

Virchow was a humanitarian, and therefore did not please German officials, when in 1848 he was sent to Upper Silesia to investigate the causes of an outbreak of relapsing fever. He reported the miserable living conditions and the semistarvation of the inhabitants in a German province, and incurred the wrath of Prussian overlords. As a result he was forced to give up work in his Berlin laboratory. However, he continued his studies as professor of pathology at Wurtzburg, where in 1856 he had achieved such distinction that he was invited to become professor of pathology in the University of Berlin.

In 1880 Virchow became a member of the Reichstag, where he failed in combatting the deadening **Deutschland uber alles** dream of Bismark. Unfortunately for a potentially great people the Germans followed the leadership of the "Iron Chancellor" instead of adopting the humanitarian principles advocated by Rudulf Virchow. That mistake in following the wrong leadership was the beginning of the end of Germany as a great nation.

Pasteur. Measured in terms of lives saved and in promoting health, happiness, efficiency, prosperity and long life among civilized people, Louis Pasteur (1822-1895), a French chemist, was the greatest man who has lived. While not a physician, he discovered that micro-organisms (germs, microbes, bacteria and viruses) cause disease of wine, silk worms, chicken cholera, anthrax and hydrophobia (lockjaw). In 1863 Pasteur said to Emperor Napoleon III of France: "My ambition is to arrive at the knowledge of putrid and contagious disease." His ambition was fulfilled; and the knowledge which Pasteur acquired, that no man had ever dreamed of before, he applied in the prevention of contagious diseases; first of wine, then of silk worms, chicken cholera, anthrax in sheep, and rabies in dogs and hydrophobia in man.

In the prevention of sepsis in wounds Joseph Lister, in 1866, applied Pasteur's proved theory that micro-organisms in the air cause putrefaction. Louis Pasteur was the founder of scientific medicine and surgery; and the prevention of all communicable diseases is based upon the principles which he discovered. The average length of life has been increased by approximately thirty years—nearly doubled—since the phophylaxis of diseases, medical and surgical, based upon Pasteur's germ theory, and his principles of vaccination have been applied in all civilized countries.

Pasteur's first great achievement was in proving that micro-organisms in the air are the cause of fermentation. He found that by heating wine to near the boiling point and keeping it in bottles from which air was excluded, further fermentation into vinegar would be prevented. He proved that putrefaction could be prevented by heating meat and meat broths and keeping them in closed containers from which air was excluded. He also proved that the fermentation of milk and butter could be prevented by the same process. This principle—what is now known as pasteurization—when applied saved the wine industry in France from ruin. Applied to the prevention of diseases which may be carried in milk in i.e., tuberculosis, typhoid fever, undulant fever, dysentery, and other bacterial diseases, pasteurization has been a large factor in reducing the general death rates. The first ten years in which pasteurization of milk was required by law, in New York City the death rates of children under five years of age was reduced by twenty-five per cent.

In examining drops of fermenting wine under the microscope, Pasteur found them teeming with minute bodies which he called micro-organisms. He placed a few drops of fermenting wine into wine that had been treated, and in a few days when a drop was placed under the microscope, it was a seething mass of micro-organisms. He concluded that the minute cells, which he had seen under the microscope, were living things and that they were the cause of fermentation. From this he deduced his famous dictum, "Life springs from life," and therefore there was no such thing as the spontaneous generation of life.

Having solved the problem of "sick wines" Pasteur was called upon to study an epidemic in silk worms, which threatened to destroy the great silk industry of France, centered at Lille. He worked for five long years studying sick silk worms. He found micro-organisms in the bodies of the afflicted worms, which he believed to be the cause of two diseases, **pebrine** and **flacherie**; and he advised methods of prevention which when applied, ended the epidemic and saved many millions of dollars a year to growers of silk worms and manufacturers of silk.

Fielding Garrison, in his monumental history of medicine, said: "Pasteur suffered from the cavillings of lesser men." Unfortunately he was forced to give time to bitter controversies when he wanted to be working on important problems. Liebig of Germany attacked his dictum of "Life springs from life"; and in France Felix-Archimede Ponchet defended the theory of spontaneous generation of life. The controversy continued for several years when Pasteur, in a masterly presentation of his studies on fermentation and putrefaction, persuaded the Academy of Sciences in Paris, in 1862, of the correctness of his conclusions.

Pasteur's critics pursued him, and he worked for a time under great difficulties. Two of his daughters died, and in 1868, when he was forty-six years of age, he had a cerebral hemorrhage. He was partially paralyzed on his left side for the rest of his life. When he was discouraged almost to the point of giving up his researches, the French government provided him with a laboratory and the munificent annuity of five hundred dollars with which to continue his work. Pasteur isolated the micro-organisms of chicken-cholera and made cultures of them in a medium of meat broth. By adding a few drops of the culture to bread and giving it to healthy fowls, he produced the disease in them in a virulent form. He observed that in using cultures which had not been renewed for several weeks, when given to chickens, they had a mild form of cholera. from which they recovered. He later tried to produce cholera in those chickens, and could not. He then used the attenuated cultures to produce immunity—to cholera in chickens. Thus was born the principle of vaccination with attenuated bacteria and viruses to prevent contagious and infectious diseases.

A Case of Congenital Anomaly of the Female Urethra and Vagina

C. C. HIGHTOWER, M.D.
Hattiesburg, Mississippi

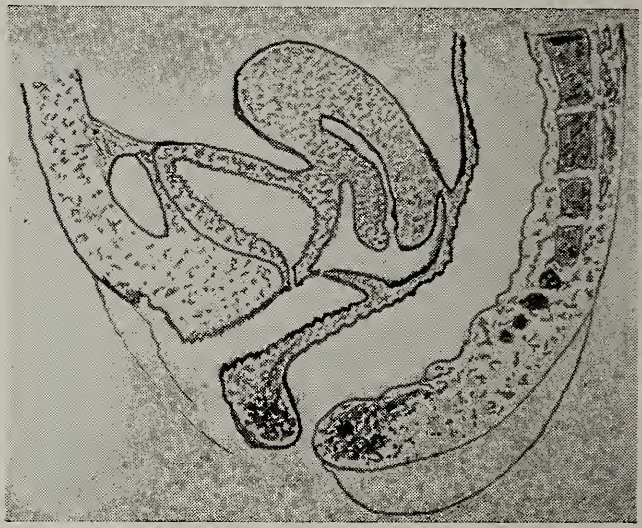
Mrs. A. C. M. age 22, came to my office with a history of never having had a normal menstruation. Each month she had a black discharge lasting two weeks and accompanied by pains in the pelvis. She had been married two years and coitus was satisfactory.

On vaginal examination, which happened to be at a time when there was no black discharge, the vagina was found to be normal in depth and in every respect except that the cervix could not be palpated or seen and the vagina terminated in a blind pouch lined by normal vaginal mucous membrane. On deep pressure the uterus could be palpated above the vaginal dome but whether the cervix was patulous, or covered by mucous membrane, could not be determined. It could not be determined where the black discharge came from each month.

Having decided that an operation would be necessary, a catheterized specimen of urine was secured but with great difficulty. It was found that the urethra was not in its normal position but on the anterior vaginal wall near where the cervix should be, as shown in the accompanying diagram.

What could be done had to be worked out at operation. It seemed advisable to cut through the dome of the vagina, find the cervix, dilate it, and cover it over with mucous membrane, if possible, and if not do a hysterectomy.

At operation two weeks later, when the black discharge was again present, on inserting the vaginal speculum the source of the discharge was discovered. There was a pinpoint opening in the dome of the vagina which was so small that it could not be detected except for the black discharge. The opening was dilated with a small probe and it was soon discovered that the vagina was divided into two parts by a septum lined above and below by normal vaginal mucous membrane. The septum was removed. A normal cervix and uterus was found above the septum. Nothing could be done with the abnormally situated urethra. The passage of the urine through the vagina seemed to cause no trouble before or since the operation.



Since the operation the menses have been normal and the patient cured of all dysmenorrhoea. The dysmenorrhoea, of course, was due to the obstruction to the menstrual flow. It required two weeks for the accumulated blood above the vaginal septum to pass through the minute opening in the septum.

The man who has nothing to boast of but his illustrious ancestors is like a potato—the only good belonging to him is underground.
—Sir Thomas Overbury (1581-1613.

Surgery and Diabetes*

H. B. SUTHERLAND
Booneville, Miss.

TWENTY-THREE years ago this combination was serious. Today it is vastly different. Thousands of diabetics owe their lives to the discoverer of insulin—Sir Frederick Banting. We are all familiar with his tragic death which occurred on February 21, 1941. To him goes the credit of this life-saving fluid. To Eli Lilly and Company and the University of Toronto's scientific group goes the credit for perfecting insulin and the reduction in the price whereby no diabetic today need be denied treatment due to high cost.

Since the advent of insulin in 1922 surgery and the improved treatment have prolonged the lives of patients with the dreaded infectious and gangrenous lesions of the feet far beyond the year they would have lived without insulin.

Surgery before insulin was a hazardous undertaking. Very few diabetics survived an operation before insulin. Very few surgeons would undertake to perform one.

As we all know, infections in diabetes always make the diabetes worse. The surgical diabetic is always the serious diabetic and the diabetic who dies. When any type of infection begins, it is necessary to increase the frequency and the amount of the dose. Many think that because the patient is not eating, the insulin should be reduced or even discontinued. No worse mistake could be made. To do either is to invite coma.

An important factor in the prognosis of surgical diabetes is whether he has had treatment prior to the development of surgical conditions. A diabetic who knows he has the disease and neglects it puts himself in a disastrous condition. The same may be said of a diabetic who is unaware of his trouble. It is disheartening to find so many diabetics who are negligent of their disease. I never fail to encourage them to remain on the treatment and at the same time to sound a note of warning of the grave consequences to expect if the rules are not carried out to the letter. Sometimes even with encouragement and warning the treatment is permitted to lag. Sometimes it takes coma or a gangrenous foot to make the dangers realized.

A surgical diabetic requires a great deal of attention. He must have detailed and intimate treatment. A surgeon unfamiliar with insulin should not undertake alone the care of a diabetic. It has been our custom for one of us to take care of the wound and the other to take care of the diabetic condition. In this way each can consult the other. If the sugar rises the surgeon must make certain that the site of operation is not giving trouble. If not, the cause of the hyperglycemia must be sought elsewhere.

The frequency of surgery in diabetics is steadily increasing. This is probably due to the fact that more diabetics live longer, and naturally more surgical diseases present themselves. Then too, elective operations can be done because improved medical methods make operations of election safe.

There is hardly an operation done today that cannot be done on a diabetic from tonsillectomy to any type of laparotomy. The mortality from these operations is being lowered each year. However, it appears there could be some rise in mortality for this reason: more diabetics live longer; and more cancers develop requiring surgery, and an aged diabetic with carcinoma must necessarily increase the percentage. The same holds true for diabetics who have had the disease a long time because arterio-sclerosis is prone to develop.

It has been our experience and that of others that if we have a clean wound and the diabetes is under control, there is very little danger of infection. As has been said, infection makes the diabetes worse. Control the infection and improvement sets in. If a patient who has had an operation and whose diabetes has been under control should begin to show sugar, we know he has an infection somewhere because of the loss of carbohydrate tolerance. Remedy this infection and the sugar will promptly clear. The presence of sugar itself may not be so serious but acidosis is. (We do not want either). It is believed that the presence of sugar is not a great hindrance to healing nor does it predispose to infection, but it is the infection itself which makes the diabetic worse and produces the hyperglycemia and acidosis.

---

*Read before the quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society. Starkville, June 1945.

The surgical diabetic who lives is the one who had an early diagnosis and the treatment is warranted. If the operation is an emergency, perform the operation and treat the diabetes later. Of course it would be better to have the patient sugar free and free of acidosis, but a fulminating appendicitis cannot afford to wait.

An example: Mr. F. H., aged forty-seven years, entered the hospital complaining of typical symptoms of appendicitis. These symptoms had been present two days. Neither he nor we knew he was a diabetic until a routine urinalysis revealed orange colored urine. A blood sugar reported was 240 mgs. per 100 cc. He was given forty units of regular U-40 insulin. The operation was immediately performed under sodium pentothal, removing an acute, ulcerative, gangrenous appendix. The pentothal sodium was given, using normal saline to keep the needle open. After the operation the rest of the 1000 cc. of saline was allowed to enter. Four hours later he was given only five units of insulin because the test color was only a greenish-yellow. His urine was tested at every voiding. He did not show any more sugar until three days had passed. The first twelve hours he had only water. Then he was given coffee and tea and clear beef broth for the next twenty-four hours. To that was added fruit juices. At the end of forty-eight hours he was given toast with his broth. The sugar shown on the third day was a yellow-green with no acetone. He was given eight units of insulin. This was at noon. In the evening the test was greenish-yellow and he was given five units of regular insulin. During this time he was being given freely of drinks and toast to maintain his carbohydrate intake. If a surgical diabetic is not doing well, look to his carbohydrate intake no matter whether he is sugar or acetone free or not. This must be maintained at 150 grams daily. This is very important. A sample diet is usually sufficient as: carbohydrate 150 to 160 grams; protein 75 grams; and fat 90 grams.

On the fourth day he was given stewed chicken, English peas, potatoes, toast and tea. At this time he was taking eighteen units of insulin daily, as his diet was increased the insulin was increased. By the end of the fifth day he was taking thirty-two units in divided doses, seventeen units in the morning and fifteen units in the evening. During this time his temperature had not been over 99.6 except his admission day when it was 100.5. Pulse rate ranged from 120 on admission down to eighty on the fifth day. On the sixth day twenty-four units were required. On the seventh day twenty-two units were necessary. On the ninth day and the day of discharge he took fifteen units. He has been on fifteen units since that time, eight units in the morning and seven units in the evening.

I did not change him to protamine zinc insulin as I would have done ordinarily. His mental condition would not permit too much confusion in the transfer and he was perfectly satisfied by taking two injections daily. We are aware of the fact that when an infection starts it is advisable to switch protamine to regular insulin. Due to the fact that protamine acts slower than regular insulin, the diabetic cannot be brought under control because the infection makes the disease rapidly worse. Regular insulin has quicker effect and does not last as long and can be often repeated. In this manner the sugar can be better controlled.

If the operation is elective, it is all right to get the patient sugar free. Give him plenty to eat because carbohydrate must be stored in the body. Feed him up to twelve hours of the operation and as soon after operation as possible. A diabetic should be filled with fluids the day before operation just as much as the day after. Maybe more so. There are very few diabetics who do not need an injection of saline in the vein or subcutaneously before an operation.

There are times when it is necessary to give a surgical patient intravenous glucose, if prolonged under-nutrition is present, if acidosis persists, if dehydration is present, if the blood has insulin circulating in it and if the patient is not able to tolerate glucose by mouth.

If the patient has been taking insulin and an operation is necessary, give the same dose of insulin he has been taking in twenty-four hours, at the time of operation. After that continue the same number of units, but break up the total dosage into smaller, more frequent doses, irrespective to meals.

It is safer to give this way than to give larger doses at infrequent intervals. The frequent intervals should be three to four hours apart, and sometimes two to eight hours. The tolerance during convalescence can be tested by raising or lowering the dose. Usually the noon dose first, then the evening dose.

Older diabetics may be relatively unaffected by insulin and we must not forget the dangers of reactions. This may occur when no food is being given and glucose is being given by vein. In this case the caloric intake is low and a moderate dose of insulin may be too much.

This next case in a surgical diabetic is presented especially because she is an identical twin. It is my understanding that no great number of diabetics in identical twins has been reported. This may not be correct.

These girls developed diabetes when six years of age and within six months of each other. They have had several childhood diseases and with very little change in the insulin dosage during this time. Both had their tonsils removed when nine years of age. It has been our custom to keep in the hospital three days the ones who have had their tonsils removed.

In November 1942 one of these girls developed symptoms of acute appendicitis. She was then twelve years of age. The urine tested an orange color and the acetone was three plus. She was suffering so intensely that time was not taken to run a blood sugar. Under ether anesthesia the abdomen was opened and there was found an acute diverticulitis of the Merckel type. This was adhered to the small bowel causing a partial obstruction.

She had thirty-five units of regular insulin that morning and no insulin was given at this time but she was given 500 cc. of lactate, Ringer's solution in the vein. The operation was performed at 2:00 P.M. and at 8:15 P.M. she was given another 500 cc. of lactate, Ringer's solution. At this time she had a greenish-yellow test with no acetone and only seven units were given. Every voided specimen was examined. Due to the fact that she had but very little sugar and from two-to-three-plus acetone, she was given by mouth saline with 10 per cent glucose, two ounces every hour for twenty-four hours. Seven units of insulin every four hours took care of the sugar, and the acetone promptly cleared. The next day fruit juices were given. The diabetes was then controlled with twenty-four units for the day and ten at night. On the third day she was given toast, scrambled egg, bacon, corn flakes and whole milk. Ten units of insulin were given. This was soon increased to fifteen units before each meal. The nurse was instructed to follow this color chart: orange fifteen units; yellow ten units; yellow-green eight units, green-yellow five to seven units; green five units; and blue no insulin. This test is made before each meal and the insulin is given fifteen minutes before each meal. If the orange color does not change then, the dosage must be increased. As her normal diet was approached the dosage was increased until she was receiving twenty units before breakfast, twenty-five at noon, and fifteen in the evening, none at night. She was discharged on the tenth day taking sixty units. Today these young ladies are sixteen years of age and are the picture of health.

In the beginning of the disease they were put on the regular insulin and later transferred to protamine. For some unsatisfactory reason, we could not control the disease and they were returned to the regular form. They are taking each fifty-four units daily, thirty-two in the morning and twenty-two in the evening. Sometimes they have a mild reaction during the night and the best preventive for this is two crackers with a small amout of peanut butter. I assure you it is no trouble to get them to eat it.

We have amputated several legs for gangrenous feet. If a diabetic has gangrene of one of more toes and the dorsal pedis pulsation cannot be felt, an early decision for a high amputation should be made. If the pulsation can be palpated, use an electrically lighted tent for a while to see whether the zone of redness fades and if it does, probably a toe amputation will suffice. If the reddened area increases, watch closely the dorsal pedis pulsation because it may disappear. If much hardening of the arteries is present, it will be better to amputate above the knee. If the vessels are in fairly good condition, then just below will probably be all right. It is better not to use a tourniquet, but if one is used, it must not be narrow. Make it as wide as possible and release it as quickly as possible. An injury to the vessel constriction may cause further gangrene to develop. The stump is closed without drainage. Some surgeons do not like to close these large stumps without drainage, but the only one we had any toruble with was one that was drained.

In twenty-four hours following amputation the patient feels like a different person. Watch the sugar after amputation. Sometimes it will drop to normal and remain there. Therefore an operation for a gangrenous foot may prove to be a blessing rather than a curse. Sometimes an infected tooth or an infected sinus relieved will cause a badly infected foot to heal. The patient is encouraged to get out of bed as soon as possible and is taught some form of exercise to keep the circulation in good condition. Be sure to give him plenty of carbohydrates.

If a surgical diabetic does not appear to be doing well and if he is sugar and acetone free, then look to the carbohydrate intake. He is more than likely not getting enough.

At least one-third of the operations on diabetics constitute the amputation of legs and toes. Gangrene usually makes its first appearance around the age of fifty. To see a patient do well after an amputation is fine, but to teach one a way to prevent it is better. When gangrene develops it is usually on the feet. Teach him to keep the feet cleaner than the face. Daily baths with care, using a good dusting powder afterwards, preferably sulfomerthiolate surgical powder, has a tendency to keep down epidermophytosis. The feet should be exercised daily to improve the circulation. Keep all wrinkles out of the socks, change the socks daily, and be sure there are no tacks or rough edges in the shoes.

I will only mention the anesthetics. I would like to say in the beginning that we use sodium pentothal in all the operations possible. We have not yet used it in children nor have we used it for tonsillectomies. Ether is used for them in children and local for grownups. Pentothal does not seem to disturb the metabolism nor the patient in any way. At the same time salt solution is given which is needed. Chloroform is harmful to a diabetic. It disturbs the carbohydrate metabolism and alters the fat metabolism because after chloroform acidosis resulting in coma is common. We have used it for short anesthetics to set a fracture, open an ear drum, and for a delivery. Ether disturbs the metabolism, but probably the greatest factor is the production of nausea which interferes with fluid intake. A mild diabetic may easily bear it. It may change a mild to a moderate, and a moderate to a severe, and that could prove fatal. However, with insulin this could be avoided. I have not had experience with nitrous oxide or cyclopropane, but I understand both are used satisfactorily at other places. We have not had any ill results with ethylene. We have had good results with spinal using pontocaine or procaine. Local anesthesia, when it can be used, works well.

Those who are most servile in their flatteries in time of prosperity become the loudest in their invectives and execrations in time of misfortune.

He is a wise man who can see through his enthusiasm the right status of his labors, without being blinded by egotism.

He is a wise man who, when the world is at his feet, can still see in the common people the true light of his success.

Beware of the man who tells you he is honest.—Anderson M. Baten.

§

Some doctors are opposing a four-year medical school in Jackson, thinking they will have no practice left. Does Jackson utilize all the health service? Does Oxford soak up all the University education? Does Meridian get all the mental therapy from the insane hospital located there? Does Columbus get overdosed with female education from M. S. C. W.?

The Mississippi Doctor

Published monthly at Booneville, Mississippi

Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

OFFICIAL ORGAN OF
Mid-South Postgraduate Medical Assembly
Mississippi State Medical Association

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ... . Assistant Editor

David E. Guyton, Blue Mountain College ...... Poet

Mid-South Postgraduate Medical Assembly
OFFICERS:
C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.
A. F. Cooper .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

EDITORS:
Fay H. Jones, M.D. E. M. Holder, M.D.
C. R. Crutchfield, M. D. C. M. Speck, M.D.
H. King Wade, M. D. F. M. Acree, M.D.

Mississippi State Medical Association
EDITOR
Lawrence W. Long, M.D.
ASSOCIATE EDITORS
J. G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi

A MEDICAL SCHOOL

In higher medical circles, by tongue and in the medical literature, we note the remark, "Sickness is a responsibility of the local community." This is only partially true; it's the responsibility of the entire nation. In many instances the very best arsenals of manpower are short on finances for health. It is good human economy for all the people to have the best there is in medicine. This can be supplied without breaking the personal relation between the doctor and the patient. We would never have had a system of through highways if we had had to wait on the poorer sections to fill in the links. We cannot have an all-out health building program without national aid, and state, church and philanthropy doing their part. The poor areas of the South are furnishing most valuable manpower to the entire nation, and it is only fair for some of this to come back to keep the arsenal going.

§

Excerpts and comment from an editorial in the **Aberdeen Examiner**, one of the state's outstanding county papers:

> **A comprehensive survey has just been made of the state's colleges, made with a view apparently to further some special interest. It looks like there might be some truth in this as far as it applies to the four-year medical school. The interest outside the state of Mississippi not having a medical school seems to be pretty strong.**
>
> **Mississippi now has five state-owned charity hospitals, and our information is that there are only six such hospitals in the United States. We believe this system is wrong; these state-owned hospitals should be given to the counties as community hospitals, then the state should support charity wards in the various community hospitals of the state.**

In the above statement Editor Sanders expresses the opinion of many. This journal has advocated this idea along with the per capita distribution of funds for fifteen years without a let-up. Yes, we have five state-owned charity hospitals poorly equipped and politically operated mainly for five counties in the state at the expense of eighty-two counties. The state has been for many years, beginning with Governor White's administration, supporting wards in all the hospitals in the state that want the support. The amount allowed has not been as much is it should have been, but it has served a great need and has laid the foundation for a hospital system and a medical school that might well take the lead in the United States for service. The time has come for medical science to serve the people instead of the people serving medical science. Going to the big centers for all medical service and all medical teaching contains about as much reason as there would be for Mr. Sanders to print his papers and expect his subscribers from over the county to come and get them each week, or for the post office to receive its mail and never deliver any, or for electricity to confine its light to large cities. The time for a decentralization and a sensible distribution of doctors and their services is at hand.

A survey should be made of the doctor shortage—but we would have to wait until 1960 when a new school could provide doctors.

Surveys may be all right, but the doctor shortage is so evident that it is just as certain as the rising of the sun. Mississippi has had two thousand doctors at times, but there are not more than five hundred really able and active men who can stand the strain now. We have men who have had their high school work and could enter college pretty soon, we have some who have had their premedical work who could enter, and within a year's time we could be offering internships if we had a correlated system with a central hospital. Interns could render a fine service in the state at this time. A very large percentage of them should serve their last six months in a community or small city hospital and with a part of this time under the direct supervision of a good practitioner.

Mississippi is financially able to own and operate a medical school if it wants it and it does not have to do it with three five-hundred-bed hospitals. Financially, socially, or physically we cannot stand the cost of family travel, the fees, and the privation on this proposition. Eighty-five per cent of sickness in our state should be treated by eighty-five per cent of our doctors in about eighty-five community hospitals or in the homes nearby. It will never be done by a supercentralization plan promoted by super-specialists of limited experience. A system of hospital service that would carry a real consultant out to each county every month in the year to meet with the local doctors and discuss with them their complicated cases, to give and receive medical knowledge, should be one of the big advances in our medical service set-up.

§

(*The following argument from Dr. D. W. Jones of Jackson expresses the sentiment of many physicians over the state.*)

Shall we hold our 1946 convention of the Mississippi State Medical Association?

Yes, by all means. And it ought to be one of the best in the history of our Association. World history has been very much in the making since our last regular meeting, and there have been many new developments in medicine and surgery.

We are anxious to hear discussions of these new things and to meet with our fellows again. My suggestion is that the meeting be given over almost altogether to our boys returning from the fields of war, with a few special numbers by outside guests who have distinguished themselves in their specialities.

Should there still be restrictions on railroad travel our doctors can get plenty of gas and can come in their cars. Should hotel accommodations be crowded, our Jackson doctors stand ready to open their homes to our fellow members.

Let us begin now to make plans for the best meeting in the history of the Association next May.

NEWS AND COMMENT

Meridian Surgeon Hurt

Meridian, Miss., August 5.—Dr. Leslie V. Rush of Meridian, one of the South's outstanding bone surgeons and co-head of Rush's Infirmary of Meridian, received a broken back at his residence on Polar Springs Drive when he was thrown to the ground from a horse. Removed to Rush's Infirmary, he was placed in a cast by his brother, Dr. Lowry Rush. It was said he will have to remain in this cast for at least two months and wear a brace for another period of some eight months.

— *Commercial Appeal*

This news is received by the medical profession of our state with deep regret. The Rush Brothers, Leslie and Lowry, are holding high the banner of medicine both in efficiency and in medical integrity.

Dr. Alphonse McMahon, St. Louis, captain, Medical Corps, U. S. Naval Reserve, chief of medical service, U. S. Naval Hospital, Bethesda, Maryland, was assigned to look after the health of President Truman and his party on their trip to Germany for the Big Three Conference. Dr. McMahon is a former president of the St. Louis Medical Society and a former member of the Council of the Southern Medical Association representing Missouri and is a past chairman of its executive committee.

Dr. J. Rice Williams of Houston, the beloved Abraham of the medical profession in the state, held a ritualist school of instruction for Blue Lodge degree teams, August 7 to 10. It was attended by Masons from east and central Mississippi. Dr. Williams is the able and popular speaker of the House of Delegates of the Mississippi State Medical Association.

ANNOUNCEMENT

Due to transportation difficulties the examination of the American Board of Ophthalmology, originally scheduled for Chicago, October, 1945, has been postponed to January 18 to 22, inclusive, 1946.

1946 examinations: Chicago, January 18-22; Los Angeles, January 28-Feb 1; New York, May or June; Chicago, October.

Albert J. McIlwain, M.D., announces the opening of offices for the practice of x-ray diagnosis, x-ray and radium therapy, 745 North State Street, Jackson 6, Mississippi. Office hours 8:00 to 5:00. Telephone 3-3412.

MEDICAL EXAMINATION NOTICE

The Mississippi State Board of Health will hold medical examinations on September 27 and 28, 1945 in Jackson, Mississippi, (12th Floor, Robert E. Lee Hotel).

Examinations may be taken on the first two years only, as well as on all four years of medicine (or the last two years for those who have passed the first two years before this Board.)

For application blank and other information address: Dr. R. N. Whitfield, assistant secretary, Mississippi State Board of Health, Jackson 113, Mississippi.

Deaths

DR. S. E. DUNLAP

Dr. Shirley Edward Dunlap, a resident of Wiggins since 1912, and since its organization, December 4, 1916, president of the Bank of Wiggins, died in Touro Infirmary in New Orleans, La., Sunday, June 10 after an illness of several months. He was born at Pulaski, Tenn., on January 8, 1879, and came to Mississippi after receiving his medical degree from the University of Nashville in 1906, and began the practice of medicine at McLaurin, Miss.

He was a member of the Presbyterian church, a Mason and a charter member of the Wiggins Rotary Club.

Dr. Dunlap was the youngest of the five children of Thomas Franklin and Ella Smith Dunlap. He is survived by his widow, Bess Henry Dunlap, a brother, W. P. of Pulaski, a sister, Mrs. J. K. Alexander of Decatur, Ala., and a number of nieces and nephews.

Interment was at Pulaski on June 13.

DR. J. A. ALEXANDER

Dr. James Albert Alexander died on July 21, at the Veterans' Hospital in Memphis, after a long and useful life, the greater part of which was spent in Indianola.

He was born in Bolton on May 29, 1866, and was a graduate of Mobile Medical College, Mobile, Ala., and did postgraduate work at Johns Hopkins University in Baltimore. He was a veteran of the Spanish-American War.

On January 25, 1900, he married Miss Josie Birdsong, and in 1901 they moved to Indianola, where he entered the practice of medicine and remained here, ill health forcing him to retire about four years ago. Much of the latter time he was confined to bed and received treatment in Hines Hospital in Hines, Ill., but for the last two months had been in the Veteran's Hospital in Memphis.

He was the son of Dr. and Mrs. James Alexander of Bolton.

He was one of the pioneer citizens of Indianola and meant much to the community, having been a member of the board of stewards of the Methodist church, of which he was a member and active in all civic and social affairs of Indianola.

He is survived by his wife and one daughter, Mrs. Paul Thomas of Spartanburg, S. C.; two granddaughters, Patsy and Ann Thomas.

DR. JOHN W. PRIMROSE

Funeral services for Dr. J. W. Primrose, widely known physician of north Mississippi, were held at Clarksdale July 18.

The remains were taken to Greenville for interment.

Dr. Primrose died after several days of critical illness. He had been in failing health for several years.

Dr. Primrose had resided in Clarksdale for forty years. He was a graduate of Memphis Hospital Medical College, 1902.

Surviving is his son, Lieut. John W. Primrose, who is a navigator-instructor overseas, and three sisters.

DR. R. A. SWITZER

Death came, after a short illness, following a heart attack to one of Stone County's best benefactors and friends, Dr. Ross A. Switzer, at his country home near McHenry July 24. Active up until the attack, he was stricken while attending a patient. He served on the board of supervisors, representing Beat 4 almost thirty years, most of that time being its presiding officer. Dr. Switzer was a friend of those less fortunate than himself and gave of his time and means to help suffering fellow citizens.

Dr. Switzer was born in Rochester, New York, November 30, 1875. He moved to south Mississippi over fifty years ago, residing in McHenry the past thirty-five years, where he actively practiced his profession. He was a member of the Methodist church and the Masonic Lodge. He was graduated in 1902 from Chattanooga Medical College.

Surviving are his widow, Mrs. Annie L. Switzer, one daughter, Mrs. Virginia Mustin, McHenry; one grandson, Glenn Switzer Mustin, and two nephews: Fred W. Switzer, Aruba Curacoa, West Indies, Edison Perry, Philadelphia, Pa., and one niece, Mrs. Esther Burns, Buffalo, New York.

CONSTRUCTIVE PROGRAM FOR MEDICAL CARE

AMERICAN MEDICAL ASSOCIATION

This platform was adopted by the Council on Medical Service and Public Relations and the Board of Trustees of the American Medical Association, on June 22, 1945

Preamble

The physicians of the United States are interested in extending to all people in all communities the best possible medical care. The Constitution of the United States, the Bill of Rights and the "American Way of Life" are diametrically opposed to regimentation or any form of totalitarianism. According to available evidence in surveys, most of the American people are not interested in testing in the United States experiments in medical care which have already failed in regimented countries.

The physicians of the United States, through the American Medical Association, have stressed repeatedly the necessity for extending to all corners of this great country the availability of aids for diagnosis and treatment, so that dependency will be minimized and independence will be stimulated. American private enterprise has won and is winning the greatest war in the world's history. Private enterprise and initiative manifested through research may conquer cancer, arthritis and other as yet unconquered scourges of humankind. Science, as history well demonstrates, prospers best when free and unshackled.

Program

The physicians represented by the American Medical Association propose the following constructive program for the extension of improved health and medical care to all the people:

1. Sustained production leading to better living conditions with improved housing, nutrition and sanitation which are fundamental to good health; we support progressive action toward achieving these objectives:

2. An extended program of disease prevention with the development or extension of organizations for public health service so that every part of our country will have such service, as rapidly as adequate personnel can be trained.

3. Increased hospitalization insurance on a voluntary basis.

4. The development in or extension to all localities of voluntary sickness insurance plans and provision for the extension of these plans to the needy under the principles already established by the American Medical Association.

5. The provision of hospitalization and medical care to the indigent by local authorities under voluntary hospital and sickness insurance plans.

6. A survey of each state by qualified individuals and agencies to establish the need for additional medical care.

7. Federal aid to states where definite need is demonstrated, to be administered by the proper local agencies of the states involved with the help and advice of the medical profession.

8. Extension of information on these plans to all the people with recognition that such voluntary programs need not involve increased taxation.

9. A continuous survey of all voluntary plans for hospitalization and illness to determine their adequacy in meeting needs and maintaining continuous improvement in quality of medical service.

10. Discharge of physicians from the armed services as rapidly as is consistent with the war effort in order to facilitate redistribution and relocation of physicians in areas needing physicians.

11. Increased availability of medical education to young men and women to provide a greater number of physicians for rural areas.

12. Postponement of consideration of revolutionary changes while 60,000 medical men are in the service voluntarily and while 12,000,000 men and women are in uniform to preserve the American democratic system of government.

13. Adoption of federal legislation to provide for adjustments in draft regulation which will permit students to prepare for and continue the study of medicine.

14. Study of postwar medical personnel requirements with special reference to the needs of the veterans' hospitals, the regular army, navy and United States Public Health Service.

Interpreting Medical Literature

Staff of Review

Dermatology—**James G. Thompson, Jackson.**

Ear, Nose and Throat—**Edley Jones, Vicksburg.**

Obstetrics and Gynecology—**J. F. Lucas,** Greenwood.

Orthopedics—Thomas H. **Blake, Jackson.**

Public Health—**Felix J. Underwood, Jackson.**

Pediatrics—**Harvey F. Garrison, Jackson.**

Radiology and Roentgenology—**Karl O. Stingily, Meridian.**

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—**W. H. Parsons, Vicksburg.**

Urology—**Temple Ainsworth, Jackson.**

DERMATOLOGY

Archives of Dermatology and Syphilology, Vol. 51; No. 5; May 1945.

PREVENTION OF IMPETIGO NEONATORUM: CLINICAL STUDY OF VARIOUS METHODS INCLUDING THE USE OF A NEW ANTISEPTIC BABY LOTION. Carl C. Fisher, Arch. Pediat. 61:352.

The problem of prevention of epidemics of impetigo neonatorum has been a major one in hospitals for many years. The quest for a satisfactory solution to this problem is still going on. In reviewing the literature for the past twenty-five years, the author finds that the suggestions to solve this problem fall into two main groups: (1) those which detail various technics designed to minimize the possibility of infection of the skin of the newborn infant by causative agent or agents of this disease ("no bath technic" by eliminations of trauma of daily cleansings); (2) those which recommend the use of various antiseptics to protect the skin of infants against such infections (external antiseptics, ointments such as ammoniated mercury, sulfonamide compounds and antiseptic oils, the antiseptic action of which depends on hydroquinine, hydroxyquinoline or clorobutanol present in oils). It is generally agreed on in the prophylaxis of this infection that the best results would follow the use of (1) a technic which would minimize traumatization of the skin of the newborn infants as much as possible and (2) an antiseptic agent which has the advantages of (a) easy application, (b) freedom from irritative and sensitivity reaction and (c) ability to inhibit the growth of infecting organisms. In the author's comparative study of the three methods of prophylaxis against this disease over a period of seven years on more than 4,000 infants, including premature infants, he showed that there was a material decrease in the incidence of infection by use of a modification of the "no bath technic" in which no attempt was made to remove the vernix caseosa or trimethyl ammonium bromide) be applied freely from birth, with special attention to groins, axillas and folds of the neck. The emollient preparation (lotion) can be applied with less trauma. Patch tests an dother tests with various dilutions of the antiseptic ingredient in the lotion showed that it was not irritating and did no produce sensitivity reactions.

Gelber, Los Angeles.

PEDIATRICS

EFFICACY OF WHOOPING COUGH VACCINE. Garvin, Justin A., *Ohio State Medical Journal,* March, 1945.

"In a prvious paper data were presented comparing the incidence of whooping cough in children under five years of age in two adjacent cities. One of the cities, Cleveland, with a population of about 900,000 had a small percentage (estimated 10 per cent) of its preschool children immunized against whooping cough by vaccine, while the other city, Shaker Heights, an adjacent residentiol suburb of 25,000 people, had a high percentage (estimated 75 per cent) of its preschool population immunized against whooping cough, mostly according to the method recommended by Sauer.

"Tables and a graph were presented showing the incidence of prescchool pertussis in each of these cities for a period of five years (1929-1933) before immunization was started and for a subsequent period of six years (1934-1939). The conclusion arrived at was that the use of whooping cough vaccine (Sauer's) as a prophylactic seemed justified.

"During the past four years (1940-1943) data similar to that obtained for the preceding eleven years has been obtained for the entire fifteen-year period.

"The prophylactic immunization of Shaker Heights infants against whooping cough has continued at a high rate, being done now as routinely as immunization against diphtheria and smallpox. In metropolitan Cleveland there has been a moderate increase in the number immunized against whooping cough due to the efforts of private physicians as its child health centers and hospital outpatients departments generally do not immunize against whooping cough."

"In the past four years the incidence of preschool whooping cough in Shaker Heights has continued at a stable low level while its incidence in Cleveland averages slightly lower than before.

"The records of the health department of suburban Shaker Heights show two other items of interest concerning whooping cough.

"1. None of the cases (6) of preschool whooping cough reported in 1943 had received prophylactic immunization against the disease.

"2. During the past three years (1941-43) a total of ten cases of whooping cough have been reported in children over five years of age." Added to the seventeen cases in this priod reported in children under five years of age, a total of twenty-seven cases of whooping cough in children of all ages in three years' time is obtained.

Apart from data presented in this paper, the writer finds confirmatory evidence of the efficacy of vaccine in preventing whooping cough in not having encountered during the past eight years a single case of his private practice among children whom he had immunized against the disease, according to Sauer's recommendations, subsequent to the year 1935.

It is concluded that the prophylactic immunization of infants and young children against whooping cough by private physicians and pediatric clinics in health centers and hospitals should be as standard practice as immunization against diphtheria and smallpox.

COMMENT

The efficacy of whooping cough vaccine as a preventive measure has been thoroughly established by many who have had experience with its use since it was placed on the market. There should no longer remain any doubt in the minds of any physicians about this and every practitioner should give it to all children between the age of four and six months because it is well-known that whooping cough in children under a year old is a very serious disease, in fact, much more so than practically any other contagious disease in childhood.

It has been our practice to give whooping cough vaccine to infants within the first month of age if it was directly exposed to the disease. The reacion from our experience is no greater in a very young infant than that of an older infant and it is well-known that in an infant less than two months of age, the mortality rate is very high. We would suggest that all practitioners keep this in mind when such exposures exist. The immunization of all diseases among infants and children primarily belongs to the private practicing physician as well as the Public Health Serivce, and if more private physicians would do more preventive work, it would be less burdensome for the Public Health Service and at the same time keep the preventive work in its normal channel where it properly belongs.

BOOKS WANTED

The Medical and Surgical Relief Committee of America has received an appeal for medical books from Dr. Severinghaus, member of the Medical Nutrition Mission in Italy. The Mission has set up in a hospital called the Polyclinica which is part of the University of Naples. The books are for the use of the Mission. Later it is intended to donate them to the Pediatric Clinic library.

The list of books requested is as follows:

1. R. P. Strong: Stitt's Diagnosis, Prevention, and treatment of Tropical Diseases—Seventh edition. 2 volumes. Blakiston.
2. Conant, Martin, et al.: Manual of Clinical Mycology. Saunders.
3. Saxl: Pediatric Dietetics. 1937. Le and Febiger.
4. Brennerman's loose leaf Pediatrics. Nelson, 4 volumes.
5. Best and Taylor: Physiological Basis of Medical Practice. Williams and Wilkins.
6. McLester: Clinical Nutrition and Dietotherapy. Saunders.
7. Miller: Oral Diagnosis. Blakiston.
8. Peters and Van Slyke: Quantitative Clinical Chemistry. Williams and Wilkins. 2 volumes.

State Board of Health

Felix J. Underwood, M.D.

A SURVEY OF THE INCIDENCE OF HOOKWORM INFECTION IN GEORGE COUNTY, MISSISSIPPI, 1944-1945

R. A. Brannon, Jr., M.D., Curtis E. Miller, and Z. E. Oswalt

Control and prevention of hookworm diseases has long been an important objective of the public health program in Mississippi. Much impetus was given to the development of full-time local health departments following the intensive work done in this field during 1910-1914. At that time surveys were made of large areas of the state under the direction of the Rockefeller Sanitary Commission[1]. Another survey was made in 1932-1933 by Keller, Leathers and Ricks[2]. Nickel[3] reported the incidence of hookworm in fifty-two counties of Mississippi based on specimens submitted to the State Hygienic Laboratory during thirty-three months of the period 1938-1941. Keller, Leathers and Densen[4] did follow-up investigations for 1930-1938. These represent the incidence of hookworm infection in the state.

Increased interest on the part of both state and local health departments in more effective hookworm control led to our making a survey of the incidence of hookworm disease in George County for 1944-1945. This county is one of four located in the southeastern area served by the Southeastern Health District, the other counties being Greene, Stone and Perry. Because of the high percentage of sand in the soil, the large annual rainfall, and the high mean temperature, the southeastern area is ideal ground for the spread and propagation of the hookworm. George County was selected from the four counties for the survey because the central office of the Southeastern Health District is located at Lucedale, the county seat.

It was decided that the easiest and most practicable manner of securing specimens for the survey would be through the schools. Consequently the county was divided into and worked by school districts. The school officials were notified in advance of the program to be carried out, and the teachers upon request prepared family records for the children, listing the name of each member of the family together with the ages of the children. Following the showing of an educational motion picture to the children about hookworm disease and a short talk, hookworm containers for each member of the family were distributed to the children together with directions for collecting the specimens and for labeling. The envelope in which the containers were distributed carried a letter addressed to the parents pointing out the importance of collecting the specimens and having them returned to the school; also educational materials were included. From the school the specimens were picked up by the health department, refrigerated, and taken to the State Hygienic Laboratory at Jackson.

The results of the laboratory reports were recorded on the family record as soon as they were received. For the positive cases a package was mailed to the head of the family, containing single dose cartons of tetrachlorethylene labeled with the name of the individual in whom hookworm infection was indicated. The package also contained epsom salts for purgation and explicit directions for taking the medicine. It was requested that the treatment be repeated two weeks later. In giving these instructions, reasonable assurance was had that the drug would be properly administered. The therapeutic goal sought was to rid the individual of the parasite. For this it will be necessary to follow up on these cases with repeated tests and treatment as needed.

The laboratory employed the simple smear method in examining specimens submitted, and in this regard it should be pointed out that this method is somewhat less accurate than the dilution technic used by Keller, Leathers and Ricks[2]. Doubtless the rate of infestation would have been somewhat higher in the present survey had the dilution technic been used and this should be borne in mind when comparing statistics for the two surveys.

RESULTS

George County with a population of approximately 9,000 people had a total of 3,622 specimen containers distributed to both Negro and white, for the purpose of determining the incidence of hookworm infection in this area. The number of specimens collected was 1709, or 47. 2 per cent of the number distributed. Of these, 466 were diagnosed as positive, revealing an incidence of hookworm disease among the white population of 29.1 per cent.

Table I shows the incidence of infestation of adults(twenty-one years and over) to be 19.5 per cent. The incidence among the group under twenty-one was 31.7 per cent.

TABLE I.

Age	Specimens Examined	Positive	Per cent Positive
0-20	1233	392	31.7
21 over	346	68	19.5

Results of the present study compared with those of the 1910-1914 survey show that there has been a decrease in the incidence of hookworm infestation of from 82.1 to 29.1 per cent —a reduction of 64.6 per cent. The reduction since the 1932-1933 survey, when incidence was 40.8 per cent, is 28.7 per cent.

TABLE II.

Incidence of Hookworm Disease in the White Population of George County for Periods, 1910-1914, 1932-1933, and 1944-1945

	Total Examined	Per cent positive
1910-1914	789	82.1
1932-1933	1618	40.8
1944-1945	1579	29.1

In summarizing the incidence of hookworm by age group, there were some striking differences in comparing with the series reported by Keller, et al. It should be taken into account, however, that the figures of this early survey were based on the totals covering fifty-two counties, while the present figures are for George County only. In the early series, the age group 0-4 had the relatively low infestation rate of 7.9 per cent. In the George County study the incidence was 22 per cent for this age group and the highest rate was found in the 10-14 group. In Keller's series the highest rate of infestation was found in the 15-19 age group.

TABLE III.

Age	Specimens Examined	Positive Specimens	Per Cent Positive
0-4	136	30	22
5-9	537	177	32.9
10-14	426	150	35.1
15-19	132	35	26.5
20-over	348	68	19.5
Total	1579	460	29.1

In the series in which is was possible to keep accurate family records, it was disclosed that of the 338 families tested, 164 had one or more infested members. The infested families comprised 48.1 per cent of the total families examined.

From Table IV it will be seen that 45.7 per cent of the infested families had but one positive member, whereas 54.3 per cent had two or more. In determining percentages of total persons infested, it will be noted that twenty-two per cent were in the group which had only one infested member per family; the remainder, or seventy-eight per cent, were in the groups with two or more per family. Ten per cent of the patients belonged to the group having six or more infested members per family.

TABLE IV.

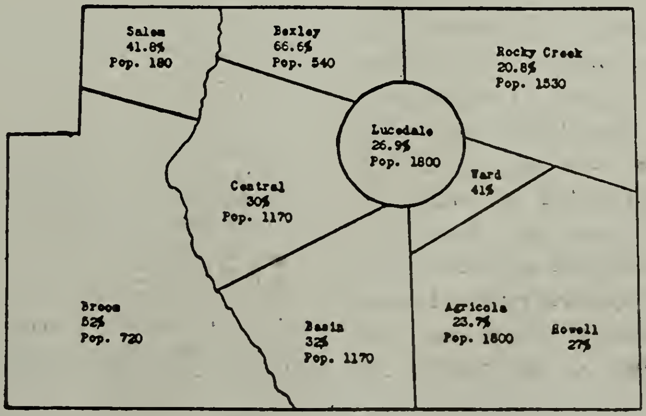
Number of Infested Persons per Family

Number Infested Persons in Family	Number Families Infested	Percentage of Infested Families by Groups	Number Persons Infested	Percentage of total Infested Persons In each Group
1	75	45.7	75	22
2	42	25.6	84	24.7
3	27	16.4	81	23.8
4	9	5.4	36	10.5
5	6	3.6	30	8.8
6 or more	5	3.0	34	10.

It is apparent that less than one-half of the families produced all the cases of hookworm infection found in the study. Since 78 per cent of the persons harboring the parasites came from only 53.3 per cent of the infected families, the incidence should be considered especially significant from the family point of view. The statistics disclose that about 25 per cent of the total families tested contained 78 per cent of the cases. It is obvious that when an infested member is found the entire family should be examined and measures taken to prevent the spread of the parasite to other members.

A small survey was also made of the Negroes in the Lucedale area. There were 290 containers distributed to sixty families, of which 130, or 44.7 per cent, were returned. Only six of the specimens were positive, revealing an incidence of 4.8 per cent.

The school districts into which George County was roughly divided are shown on Map I, with the incidence of hookworm infection being indicated. The results are thought to be significant in that the Rocky Creek and Agricola districts, both of which are relatively thickly populated and prosperous, have a much lower incidence than the poorer and more sparsely settled districts of Bexley, Salem and Broom. The two districts of Central and Basin are intermediate regarding density of population, prosperity and hookworm infestation. As the map clearly illustrates, hookworm infection is a greater problem in the less highly developed and less prosperous communities. The Lucedale area actually has a lower rate of infestation than the 26.9 per cent indicated, as a large number of the students enrolled at the Lucedale schools were residents of the Salem, Bexley, Ward and Central districts. It is difficult to account for the high infestation rate in Ward District, unless due to the small number of specimens examined and the probability of error in proportion to the total population.



Map 1. George County, showing school districts, population of each district and percentage of population with hookworm infection.

TABLE V. **Table showing results of hookworm survey.**

School	No of Families	No. in Families	Specimens Examined	Positive Specimens	Negative Specimens	Percent of Positives
Rocky Creek	156	901	335	70	265	20.8
Agricola	129	527	307	73	234	23.7
Broom	60	284	144	75	69	52
Central	76	398	93	28	65	30
Basin	50	197	100	32	68	32
Bexley	37	190	70	44	26	66.6
Salem	20	100	43	18	25	41.8
Ward		50	34	13	21	41
Howell		25	11	3	8	27.3
Lucedale		400	182	49	183	26.9
Office		260	260	55	205	21.1
Lucedale (Col.)	60	290	130	6	124	4.8

Summary and Conclusion

A hookworm survey was made of George County during 1944-1945, working through the schools. It was demonstrated that 19.5 per cent of the white adults and 31.7 per cent of the white children had hookworm infection.

The reduction in the incidence of hookworm infection from 1910-1914 to 1944-1945 was 64.6 per cent; from 1932-1933 to 1944-1945, 28.7 per cent.

The age group 10-14 had the highest rate of infection.

It was revealed that 48.1 per cent of the families had one or more infected members; 78 per cent of the infected individuals came from one-fourth of the total families tested.

The Negro population had an infection rate of 4.8 per cent in a small number tested in the Lucedale area.

Low economic status and its resultant poor environmental conditions seems to be in some measure responsible for the higher incidence of hookworm in certain areas of the county.

In spite of the good work which has been done toward the eradication of hookworm infection, it may be readily seen that its incidence is much too high for the county in which this survey was undertaken. The same no doubt holds true for other areas. It is apparent that the program must be expanded in order to attack the problem with new and increased vigor to insure certain and lasting results. It is recommended that well-trained public health workers specializing in health education and hookworm control be added to the health department staff to concentrate on this goal. It is further recommended that measures such as the following be included in the program.

1. All school children be tested for hookworm infection prior to admission to school each fall.
2. All positive pupils be treated until free of hookworm.
3. Adults be encouraged to have tests made.
4. Effective education about hookworm disease be extended to everyone.
5. Construction and use of sanitary privies be encouraged in areas where needed.
6. Research be undertaken with a view toward developing new and better methods of treatment and prevention of hookworm infection.

When such measures as these are instituted and carried out, it is earnestly believed that the incidence of hookworm disease can be almost, if not wholly, eradicated within a few years.

REFERENCES

1. The Rockefeller Sanitary Commission for the Eradication of Hookworm Disease. Annual Reports, 1910-1914.
2. Keller, A. E., Leathers, W. S., and Ricks, H. C.: An investigation of the incidence and intensity of infestation of hookworm in Mississippi. Amer. Jour. Hyg. 19: 629-656, May, 1934.
3. Nickel, N. S.: Amebiasis and hookworm infection as found in approximately 50,000 fecal examinations in Mississippi. Amer. Jour. Trop. Med. 22:-209-215, 1942.
4. Keller, A. E., Leathers, W. S. and Denson, Paul M.: Results of recent studies of hookworm in eight Southern States. Amer. Jour. Trop. Med. 20: 493-509, July 1940.

He most prevails who nobly dares.

—William Broome

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	May 1945	May 1944	May-5 yr. avg.
Acute poliomyelitis	2	6	3.4
Bacillary dysentery	964	1034	1289.6
Dengue	0	0	2.6
Diphtheria	19	24	18.2
Influenza	1631	1717	1595.6
Measles	2418	2133	2233.6
Meningococcus meningitis	9	30	18.4
Other forms meningitis	2	9	4.0
Pellagra	169	286	305.0
Pneumonia	918	842	760.4
Pulmonary tuberculosis	1139	152	146.6
Scarlet fever	47	20	22.6
Smallpox	0	3	3.2
Tularemia	2	19	6.6
Typhoid fever	7	10	8.6
Typhus fever	9	10	5.4
Undulant fever	2	5	2.8
Whooping cough	838	1514	1319.2

	June June	June June	June 5-Yr. Avg.
Acute Poliomyelitis	3	10	6.8
Bacillary Dysentery	1692	2365	2601.4
Dengue	0	0	.8
Diphtheria	27	16	16.2
Influenza	1032	935	949.2
Measles	1237	671	957.8
Meningococcus Meningitis	12	15	10.6
Other Forms Meningitis	2	1	1.6
Pellagra	239	267	332.4
Pneumonia	591	484	456.8
Pulmonary Tuberculosis	145	241	154.6
Scarlet Fever	30	19	18.8
Smallpox	0	5	1.6
Tularemia	5	18	9.4
Typhoid Fever	14	13	17.8
Typhus Fever	12	25	12.2
Undulant Fever	8	3	5.6
Whooping Cough	820	1495	1222.0

I really think that next to the consciousness of doing a good action, that of doing a civil one is the most pleasing: and the epithet which I should covet the most, next to that of Aristides, would be that of "well-bred."

—Lord Chesterfield (1594-1773)

* * * * *

Labor to keep in your breast that little park of celestial fire called conscience.

—George Washington

Woman's Auxiliary

President .... Mrs. L. J. Clark
Vicksburg
President-Elect .... Mrs. Stanley Hill
Corinth
First Vice-President ....Mrs. H. C. Ricks
Jackson
Second Vice-President .... Mrs. Henry Boswell
Sanatorium
Third Vice-President .... Mrs. W. H. Anderson
Booneville
Recording Secretary .... Mrs. Geo. W. Owens
Jackson
Fourth Vice-President .... Mrs. Ben Walker
Jackson
Treasurer .... Mrs. J. D. Simmons
Cleveland
Historian .... Mrs. Harvey Garrison
Jackson

Dear Auxiliary Members:

Now is the time to make your plans for your Auxiliary activities for the year. Don't wait until the first meeting to appoint chairmen, formulate your plans, and outline programs. Let's be ready to start off with a bang at the first signal.

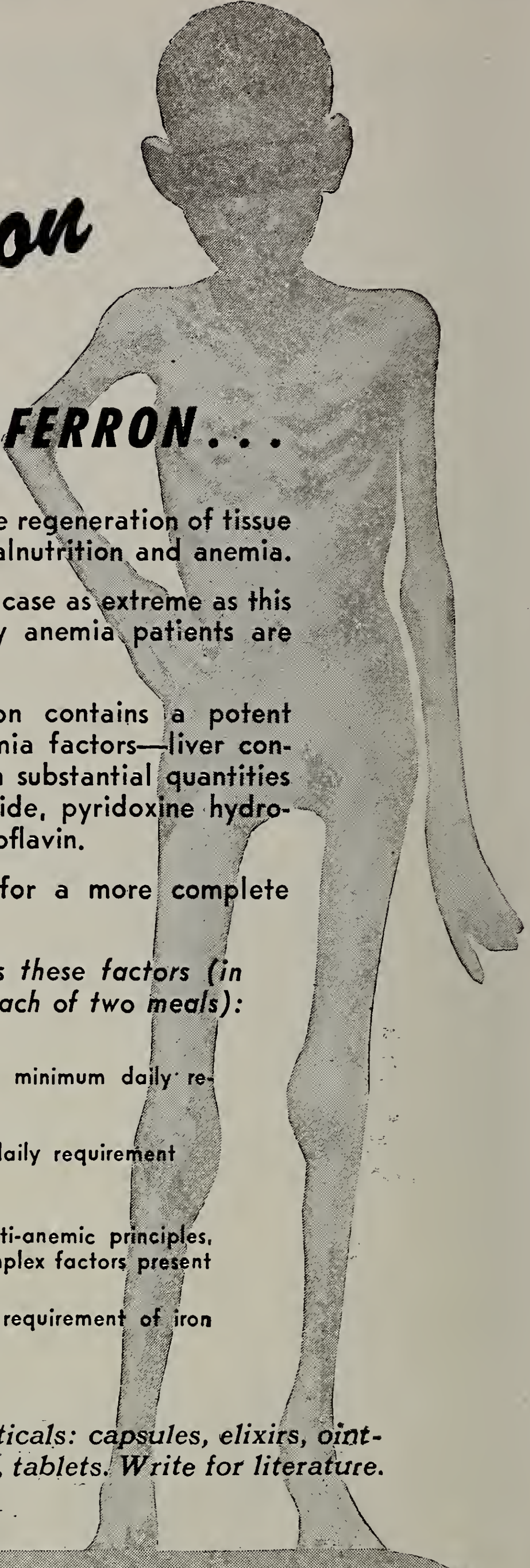
It will be my pleasure to serve you again as your president, and with the experience of the past year, I shall be able to help more efficiently and successfully. The task seems hard but with your loyalty, support, and interest I shall strive diligently to achieve some of the aims and objectives that are ours as auxiliary members

We missed our annual convention this year but the executive board met and was well attended, which was very gratifying to your president.

Reports showed that we had made progress during the trying times and your officers, chairmen, and councilors felt that the meeting had proved of great benefit and they returned home to work with renewed interest and enthusiasm.

The fall executive board meeting will come early this year and I trust it will be well attended. This friendly contact of the executive committee should be inspirational as well as helpful in making plans and exchanging ideas. Each should go back to her district with renewed determination and enthusiasm to make a better auxiliary member.

Affectionately,
ANNE CLARK, President



Rehabilitation

Elixir LI-BETAFERRON . . .

rich in the nutritious principles required for the regeneration of tissue and rehabilitation of the body in cases of malnutrition and anemia.

You seldom, if ever, see in civilian practice a case as extreme as this one from a war zone — but your secondary anemia patients are often vitamin-starved to an alarming extent.

That's why Warren-Teed Elixir Li-Betaferron contains a potent vitamin dosage in addition to its basic anemia factors—liver concentrate and organic iron. It is fortified with substantial quantities of nutritious principles—thiamine hydrochloride, pyridoxine hydrochloride, nicotinamide, pantothenic acid, riboflavin.

Prescribe Warren-Teed Elixir Li-Betaferron for a more complete secondary anemia therapy.

High-potency Elixir Li-Betaferron supplies these factors (in adult dosage of one tablespoonful after each of two meals):

B-COMPLEX
  B_1 (thiamine hydrochloride)—18 times the minimum daily requirement
  B_2 (riboflavin)—3 times the m.d.r.
  Nicotinamide—6 times the recommended daily requirement
  Pantothenic acid—m.d.r. not established
  B_6 (pyridoxine)—m.d.r. not established
WHOLE LIVER 1:20 concentrate containing anti-anemic principles, with factor W and the other Vitamin B complex factors present as in liver
ORGANIC IRON 30 times the minimum daily requirement of iron (20 times for pregnant or lactating women)

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

W BY ANY TEST Pharmaceuticals T

WARREN-TEED

Medicaments of Exacting Quality Since 1920

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Marion Sims and Other Nineteenth Century Pioneers: the Dawn of Scientific Medicine and Surgery

SEALE HARRIS, M.D.
Birmingham, Alabama

PART II

Marion Sims was established as a surgeon in Paris in 1862. It is safe to say that he was keenly interested in Pasteur's achievements, and no doubt he was on the side of Pasteur in his controversy with the eloquent Ponchet. Sims was one of the first great surgeons of the time to accept Pasteur's germ theory of disease.

Statue of Marion Sims
Montgomery, Alabama

Anthrax in sheep was an important economic problem in France, which Pasteur solved by producing immunity to the disease in cattle with the use of attenuated cultures of the anthrax bacillus. While Pasteur was making experiments on anthrax, a few sheep died. The antivivisectionists of France arrayed against Pasteur, and for a time many sheep raisers regarded him as they did a "sheep-killing dog." One of Pasteur's great triumphs in confounding his critics was to invite them to witness proof that his vaccines would prevent the disease in sheep. In their presence he gave twenty-five sheep the vaccines, and a few weeks later he innoculated them and twenty-five other sheep with cultures of the anthrax bacillus. They were invited back later to find the twenty-five sheep grazing contentedly while the twenty-five unvaccinated sheep were all dead. Howard W. Haggard, in *Devils, Drugs and Doctors,* cites Huxley, the English biologist, as estimating that the economic saving to France by Pasteur in his discoveries of methods for preventing diseases of wine, silkworms and sheep "would suffice to cover the indemnity of five billion francs paid by France to Germany in 1870."

Hydrophobia, the most fatal of all diseases, at one time threatened to destroy all the dogs in France; and hydrophobia was not infrequent among the human victims of mad dogs. Pasteur, in attacking that problem, was unable to isolate the micro-organism that caused hydrophobia—it has not yet been found—but he made a culture of it and called it a virus. He found that the virus of rabies was fixed in the nervous system of dogs. He reproduced the disease in rabbits, and by using attenuated cultures made from the nerve tissue of rabbits, produced immunity to rabies in dogs and hydrophobia in human beings. Since the incubation period of rabies is longer than the time that it takes to produce immunity, Pasteur's rabies vaccine if used early enough will prevent the disease in animals and in human beings who have been bitten by mad dogs.

While rabies is found occasionally in cats and among wild animals, if it were possible to vaccinate the canine population of a country against the disease, as is practiced on persons in the United States in the prevention of typhoid fever, there would be no more mad dogs and hydrophobia would cease to exist.

It is strange that the French failed to recognize the import of Pasteur's discoveries until after Joseph Lister of Glasgow, in 1866, had applied his principles in developing antisepsis in preventing the infections of wounds; and until the Germans, after 1880, working on his germ theory of disease, though giving Pasteur

MEDICAL LIBRARY - UNIVERSITY OF MARYLAND

scant credit for the greatest of all achievements in medicine—had evolved the science of bacteriology. It was not until 1886 that the Pasteur Institute was established to put into practice Pasteur's method of vaccination against hydrophobia. It later was enlarged and endowed, until it became recognized as one of the greatest research institutions in the world. The French government also awarded him the Grand Cross of the Legion of Honor, and provided him a comfortable annuity to care for him in his declining years. The French, though belated in recognizing the greatness of Pasteur, revered him in the latter years of his life for what he had done for France. However, the thought comes that if the French had loved Napoleon, and his imperialism, less; and had appreciated Pasteur, and his ideals, more, their place in the world would be different from what it is today.

Lister. Joseph Lister (1827-1912) was the greatest Englishman, or Britisher, who has lived; and he is second only to Pasteur as a benefactor of mankind. He was born of Quaker parentage near, and educated in, London. After graduation in medicine in 1852 he was an assistant for five years to James Syme, professor of surgery in the University of Edinburgh. Lister's greatest accomplishment in Edinburgh was to marry Agnes Syme, the beautiful and accomplished daughter of the great Scotch surgeon in 1856. He was made professor of surgery in the University of Glasgow in 1860. There he continued the study of healing in wounds begun in Edinburgh.

Lister was appalled at the high mortality in the surgical wards of the Royal Infirmary of Glasgow. They were not higher there, however, than in any other hospital in the world of that time. Lister reported a death rate of forty-five per cent in his own amputations in 1864. In studying the causes of infections, in practically all operations he was convinced that lack of cleanliness of the hospital was one factor. He observed that simple fractures in which there were no open wounds usually healed without any trouble; while patients who had compound fractures in which there was an open wound usually developed gangrene or septicemia and died. He concluded that something from the air infected the open wound.

In 1864 Lister's friend, Thomas Anderson, professor of chemistry in the University of Glasgow, suggested that he read Pasteur's address delivered before the French Academy of Sciences in Paris in 1862, in which he reported his researches on fermentation and putrefaction. Lister, on reading Pasteur's proof that microbes from the air caused fermentation of wine and the putrefaction of meats, concluded that if he could exclude micro-organisms in the air from clean wounds, they would heal without inflammation.

With this idea dominant in his mind Lister went to work to develop methods to prevent the entrance of germs into wounds. Carbolic acid was known to be a deodorizer and Lister surmized that it would kill micro-organisms that he believed were the cause of inflammation, gangrene and septicemia. He used a five per cent solution to disinfect his surgical instruments and his hands before operations, and the same solution to disinfect his surgical instruments and his hands before operations, and the same solution to disinfect the skin in clean operations and open wounds in accidents. Following the operation he covered the wound with six layers of gauze that had been soaked in the carbolic acid solution to prevent the entrance of germs. He tried that method in his surgical wards of the Royal Infirmary with the result that in a few months in eleven cases of compound fractures there were ten recoveries and only one death.

Lister's first article on his antiseptic technique "On Compound Fractures," appeared in the *London Lancet* in March 1867. Another followed on "Preliminary Notice on Abscess," and finally his address before the British Medical Association in Dublin, entitled "On the Antiseptic Principle in the Practice of Surgery," was published in the same journal. In the last he summarized his results, including a statement that in nine months, in all kinds of operations, not a case of pyemia or hospital gangrene had occurred. In this immortal paper Lister proved beyond the shadow of a doubt that the use of his antiseptic methods would prevent infections in clean surgical operations. Any surgeon with an open mind would have adopted methods which should save the lives of his patients. Lister had revolutionized the practice of surgery; but few then established surgeons would admit it.

Following the publication of Lister's article, a flood of papers were published in the medical journals of England, Scotland and Ireland attacking Lister and his methods. Among the bitterest antagonists of Lister was Sir James Simpson, who had silenced his critics on the use of chloroform in midwifery; but who was vanquished by Lister in reply to articles in which Simpson questioned his veracity. Sir James derided as "mythical fungi" the micro-organisms described by Pasteur as being the cause of fermentation and putrefaction, and on which Lister based his "antiseptic principle" in surgery. Sir James Simpson was a traditional adversary of James Syme's, and his mind was closed to anything worthwhile that the son-in-law, Joseph Lister, could do. Syme defended Lister, and accused Simpson and others of an attempt to "filch away the credit due him" (Lister).

Marion Sims was one of the first great surgeons to adopt Lister's antiseptic technique. He no doubt was a believer in Pasteur's theory of micro-organisms as the cause of fermentation and putrefaction before Lister had read Pasteur's article on that subject. Sims was president of the American Medical Association when Lister came to the United States to attend the International Congress of Surgery, held at the Centennial Exhibition at Philadelphia in 1876, and was one of his hosts while in New York. Up to that time there were few American surgeons who used, or believed in, Lister's methods. Lister's tour of the United States and Canada, when he visited Boston, New York, Philadelphia, Salt Lake City and San Francisco, Toronto and Montreal, stimulated an interest in antisepsis in surgery; and he convinced many of the leading surgeons in America of the value of his method. There were many skeptics, however, whom he did not convince, as shown by the fact that at a meeting of the American Surgical Association in 1883, most of the speakers opposed the Listerian theory.

In October 1877, Sims, then in Paris on a visit, published a letter in the *British Medical Journal,* commenting on Lister's first address as professor of surgery in King's College, London. Excerpts from that letter show that Sims visualized asepsis in surgery years before the Germans proved its value. Sims said:

> "For a long time, I have been fully convinced of the value of antisepticism in surgery. It is certainly one of the great advances, if not the greatest, of the age; and I am surprised that the profession has been slow in adopting it. . . . For myself, I accept Professor Lister's theories out and out. His results, whether his theory is true or false, are all that he claims and all that could be desired. Why, then, I repeat, are we so slow to adopt his method? The objections that I have heard urged against it are these: 1. It takes too much time; 2. It is too complex; 3. It is too expensive. Now, I would most respectfully ask Professor Lister, 'Is it not possible to simplify the dressing, so as to do away with all these objections and at the same time insure the same successful results?' Seven years ago, it was my great privilege to spend a whole day enjoying the hospitality of my friend, Professor Lister. By reading his philosophic papers before my visit, I was fully convinced of the truth of his theories; and by witnessing the results of his practice, I was equally convinced of the value of his method. At that time, it occurred to me to ask the question above propounded; but I could not, and did not. I was prompted to it by seeing in his laboratory a score or more of flasks with long necks, stoppered only with a clean cotton wool, each flask containing urine, or other putrescible fluids, which have all remained unchanged, some for months and some for years. These curious experiments embody a great truth which Lister has for long years implored us to accept and put to practice, but we do not . . .
>
> "Now, if putrescible fluids in a flask can be thus so easily protected against putrefaction simply with a bit of clean cotton wool, without adding layers of carbolized cloth, why cannot wounds that might take on putrefactive action be protected against this just as thoroughly with a simple covering of clean cotton wool, without these expensive carbolized coverings? . . . **For the last ten years, I have used plain clean dry cotton wool as a dressing for the abdominal section in ovariotomy, and I can truly say that no other dressing can compare with it.** To kill atmospheric organisms in a glass flask with a long narrow neck, we apply nothing else, and it protects the contained fluid against all change indefinitely. About this there is

> not the shadow of a doubt. And to kill atmospheric organisms during surgical operations, we use carbolic acid, dilute sulphurous acid, or other germicide, in spray, and with absolute success. Now, if at this stage of the operation we could simply cover the wound over with cotton wool, as we do the mouth of the purified flask which contains putrescible fluids, it would save us a great deal of time, trouble and money. If the cotton wool 'does not permit the entrance either of the yeast-plant or any other form of dust' in the one instance, why should it in the other? If the cotton wool filters the air from its impurities as it passes through a glass tube, why can it not do the same thing under other and all circumstances? . . . It is, therefore, important that something be done not only to simplify the dressing, but to cheapen it, before it can be generally adopted in hospital practice; and I know of no one so competent to do this as Professor Lister, the father of antiseptic surgery. He has made many modifications of his method since he first published it to the world. Let him go on till he reduces it to that degree of simplicity and perfection that will compel every one to adopt it."

It is of passing interest to note that the simplification of surgical dressings by the use of a layer of cotton over the site of operations was practiced by Sims for a quarter of a century before asepsis, instead of antisepsis, was generally adopted by the best surgeons.

The leading surgeons of London were the last to accept Lister's theories and to adopt his methods. They rose up in arms and protested when it was announced that he had been invited to become professor of surgery in King's College; but Lister, anxious to prove to his fellow countrymen the value of antisepsis in surgery, accepted the position. A majority of the faculty of King's College lined up against Lister. They were so hostile to him that, according to Rhoda Truax, Lister's latest and best biographer, in "Joseph Lister, Father of Modern Surgery," "a student had to care a great deal about pure knowledge to jeopardize his chances of getting a degree by listening to what Mr. Lister had to say." Lister soon won over the students, as he had done the young men in Glasgow and Edinburgh. He said: "From the beginning I had youth on my side."

Every possible obstacle was placed in the way of the new professor of surgery to prevent his views from prevailing. He was laughed at by his erudite confrères; and his "donkey" engine, which generated steam to spray a solution of carbolic acid over the site of operations was the joke of London. Lister worked quietly and patiently. He proved his low mortality rates, as compared to those of Wood and his other critics in the same hospital, that his antisepsis in surgery would save human lives.

Lister's triumph in London was complete. He became the leading surgeon of the British metropolis. He was called upon to operate upon Queen Victoria, whose life was threatened by a large abscess. In this operation he used his antiseptic methods, including the derided "donkey" engine. The operation was entirely successful and in thanking her surgeon Queen Victoria said it was "a most disagreeable duty most agreeably performed." In her gratitude Queen Victoria made Lister her "Surgeon in Ordinary" in 1878. In 1883 the Queen bestowed upon him the highest honor that had ever been given a physician when she made him a baronet. In 1885 Lord Lister was awarded honorary degrees in Oxford and Cambridge. He also was given the Prussian Order of Merit in the same year.

The "donkey engine" Lister used to generate carbolized steam to destroy germs in operating rooms, was discarded by him in 1887, because as he admitted "it was valueless." Likewise he abandoned the use of the odoriferous, cumbersome, carbolized muslin dressings to substitute for them a layer of sterilized cotton to protect wounds from invasion by pyogenic bacteria. Lister, himself, in the latter years of his practice, adopted the aseptic technique developed by the Germans; but he established a principle, which when applied by careful surgeons, has enabled them to invade the abdominal cavity, the lungs, the brain and every other organ of the body, when necessary to remove diseased tissue. Surgeons will be saving human lives until the end of time because Joseph Lister had the vision to see the relationship between pathogenic micro-organisms and inflammation, gangrene and erysipelas; and because he developed methods of preventing the invasion of open wounds by pathogenic germs.

Before Lister died in 1912, at the age of eighty-five years, he knew that his principle of protecting wounds from invasion was adopted in every country in the world in which scientific surgery is practiced. There were a few surgeons in Edinburgh and London who never forgave Lister for his greatness, and who could not forget that in their efforts to discredit him they exhibited their own weakness; but he died the best beloved man in the British Empire, and his body is interred in Westminister Abbey, with other immortal Englishmen. So long as medical history is preserved Joseph Lister will be known as the greatest surgeon of all time.

Robert Koch. In 1870 Robert Koch (1843-1910), at the age 27, served as a medical officer of the German army in the Franco-Prussian War. Marion Sims, at the age of 57, a colonel in the French army, operated on French and German soldiers wounded in the battle of Sedan. Sims had never heard of Koch, who was marked by destiny to develop the science of bacteriology, but every doctor serving in the German army had heard of Sims. The German government had bestowed the Iron Cross—then an insignia of honor—upon Sims; and he had been given honorary membership in a number of German medical societies.

Operations devised by Sims had been performed by a number of leading German surgeons, some of whom failed to give an American credit for having perfected a procedure which enabled them to cure women of a hopeless condition that sometimes followed prolonged labor. Sims' book, *Uterine Surgery,* published simultaneously in Berlin, London and New York in 1865, was revolutionizing the treatment of diseases of women in Germany; his speculum, and other instruments he had devised, were being used by German surgeons—with mentioning that they were the product of his ingenuity. In later years the Germans claimed that gynecology originated in Germany.

Two years after the Franco-Prussian War had ended Koch's wife made him a birthday present of a microscope. He was then a country doctor in Silesia, in which sheep raising was the principle source of income for peasants, some of whom were patients of Koch. Knowing of Pasteur's germ theory of disease, Koch's first use of his microscope was in trying to find the micro-organism that causes anthrax in sheep. He succeeded in 1876, and that achievement was the beginning of the science of bacteriology.

Koch found that the anthrax bacillus could be stained with analine dyes, and that it could be cultured on gelatin, a solid medium. He inoculated sheep and rabbits with culture of anthrax. He made cultures of bacillus anthracis obtained from the animals he had inoculated and injected them into rabbits, causing anthrax in them. The publication of this work was responsible for Koch's being invited to Berlin, where with ample laboratory facilities and capable assistants he continued his studies on bacteria. Using a Zeiss oil immersion lens and an Abbe condenser on his microscope, and with the use of analine dyes in staining bacteria, Koch discovered the bacillus of tuberculosis in 1882, and the bacillus of cholera in 1884.

Asepsis. Koch's bacterial studies provided the basis for developing asepsis in surgery. He and Klebs found streptococci and staphylococci in the pus of infected wounds. Koch and Fehleisen proved that streptococci cause erysipelas. Koch studied the effect of antiseptics on streptococci and staphylococci, and proved that a 1-1000 solution of bichloride of mercury was more effective in destroying them than a five per cent solution of carbolic acid. Koch also proved that the use of boiling water and steam was the best method of sterilizing instruments and gauze before operations.

While Koch and his confrères in Berlin were experimenting with pyogenic bacteria and methods to prevent infection of wounds, a Swiss professor of bacteriology in Zurich, Carl Eberth, discoverer of the bacillus typhosus, made studies of bacteria on the hands. He found streptococci and staphylococci and other micro-organisms on the surface of the skin, beneath finger nails and in hair follicles. Eberth proved that immersion of the hands in solutions of carbolic acid and bichloride of mercury did not sterilize them, but that scrubbing them with soap and a nail brush and thorough cleansing in running water was more effective.

When Lister's paper on the antiseptic principle was published in 1866 it started a controversy that lasted a quarter of a century between Theodor Billroth, professor of surgery in the University of Vienna, then the greatest teaching medical center in Europe; and von Bergmann, professor of surgery in Berlin, which following the epoch making achievements of Virchow was the first medical rival of the Austrian capital.

Billroth, working in the **Algemeines Krankenhaus** in Vienna, then the greatest teaching hospital in the world, combated Lister's theories with all the fervor of a reactionary fighting to prevent progress. He refused to use Lister's methods; and the mortality records of deaths from septicemia, gangrene and erysipelas remained high in Vienna hospitals. In Germany von Bergmann in Berlin, Thiersch in Leipzig, von Volkmann in Halle, and von Nussbaum in Munich, applied Lister's antisepsis methods in the surgical wards of their hospitals, with amazing reductions in the number of deaths from wound infections. Von Bergmann found Lister's methods difficult in application and he determined to develop a technique which would eliminate the use of carbolic solutions. Applying the knowledge learned from the researches of Koch, Klebs and Eberth, von Bergmann and his assistant, Carl Schimmelbusch, developed the aseptic technique in surgery as it is practiced in every well equipped hospital in the world today. The publication of Schimmelbusch's book on "The Aseptic Treatment of Wounds" in 1892 had a profound effect in the transition from antisepsis in surgery. It brought surgical asepsis to the United States the same year.

The Advent of Johns Hopkins Medical School. W. S. Halsted, professor of surgery in the recently established Johns Hopkins Medical School, on reading of the technique employed in von Bergmann's clinic in Berlin, had steam sterilizers placed in the operating rooms of the Johns Hopkins Hospital. Halsted, and his associate, Howard A. Kelly, professor of gynecology, abandoned Lister's methods and adopted the von Bergmann aseptic technique in every detail. Three years later in 1875, Hunter Robb, an associate of Kelly, published a book describing the aseptic technique in use at Johns Hopkins Hospital as adapted from methods employed by von Bergmann and Schimmelbusch. In the same year Welch published *The Bacteriology of Surgical Infections.* These books were factors in popularizing aseptic surgery in the United States.

The use of rubber gloves was an important development in aseptic surgery. When first used at the Johns Hopkins Hospital in 1888, their effect in preventing the transmission of pathogenic bacteria from the surgeon's hands to open wounds was not considered. The late J. M. T. Finney, in his autobiography, *A Surgeon's Life,* related an interesting romance of how rubber gloves were first used in operating rooms. Finney said:

> "The story of the development of the use of rubber gloves in surgery is a curious one. In addition to her unusual professional qualifications, the head nurse in the Johns Hopkins Hospital operating room, Miss Caroline Hampton, had for some time attracted the personal interest of Dr. Halsted, who was a bachelor. This mutual attraction had early been observed by the members of the resident staff and the operating room nurses, and, needless to say, the progress of the courtship was watched with interest. About this time Miss Hampton's hands, which had suffered greatly from immersion in the antiseptic fluids, carbolic acid and bichloride of mercury, had reached the point where she could no longer carry on. Dr. Halsted's concern for Miss Hampton was two-fold; an interest in her personal well-being and in having her assistance in carrying out the operating room technique. After trying various experiments to no avail, he finally hit upon the idea of having made for her thin rubber gloves, which would afford the desired protection to the skin of her hands . . .
>
> "One day in discussing the use of rubber gloves for Miss Hampton, Dr. Bloodgood observed that 'what's sauce for the goose is sauce for the gander.' If rubber gloves were all right for the nurse's hands, why not put them on the surgeon and the other assistants? The idea took, the gloves were made and gradually came into use, first by the nurse, then by the assistants and finally by the operator himself. From that time on rubber gloves have been in constant use not only in the surgical clinic of the Johns Hopkins Hospital but in modern, up-to-date hospitals all over the world . . . It is a pleasure to note that the interesting romance begun in the operating room, yielded a priceless boon to aseptic surgery, and finally culminated in a happy marriage."

Since the complete moral and physical degradation of Germany as a nation, it is not popular to credit the Germans with having accomplished anything good at any time; but, the fact remains that the development of scientific medicine and surgery in the last half of the nineteenth century was largely the product of German brains and ingenuity. This is said without discredit to Bichat, Pasteur, Lister, and other pioneers in medicine and surgery, who discovered the principles upon which the Germans based their epoch-making studies in pathology and bacteriology. No one can deny that the Germans are largely responsible for making the laboratory a *sine qua non* in the practice of medicine and surgery.

If a student of medical history were asked to name the four physicians who did most to advance the science and practice of medicine and surgery in the last fifteen years of the nineteenth century, without hesitation, he would list four professors in the Johns Hopkins Medical School, i.e., William H. Welch (1850-1934); William S. Halsted (1852-1933); William Osler (1849-1919) and Howard A. Kelly (1858-1944). The four men after having received the best possible training in medicine in America—Welch at Yale; Halsted at Columbia; Osler at McGill; and Kelly at Pennsylvania—spent several years in postgraduate study in Europe, largely in Germany. Welch and Halsted in New York, Osler and Kelly in Philadelphia, brought to the United States laboratory methods they had learned in Germany. The equipment and supplies for their laboratories were purchased largely in Germany.

In 1886, when William H. Welch was selected by Daniel Gillman, president of Johns Hopkins University, to develop Johns Hopkins Hospital and Johns Hopkins Medical School, he brought Halsted as professor of medicine and Kelly as professor of gynecology. Welch himself became professor of pathology. Halsted was first a pathologist; Osler had been professor of pathology in the University of Pennsylvania; and Kelly had excellent training in pathology. Those four men applied in Baltimore the pathology and bacteriology they had learned in Germany. Each of them made important contributions in their respective fields; and what is perhaps more important, they published reports of their achievements in many books and hundreds of articles in medical journals.

Welch discovered the bacillus of gas gangrene. Among the publications of Welch, which had a profound influence on medical thought in the United States and Canada, were "General Pathology of Fever," 1888 and "The Biology of Bacterial Infection and Immunity" in 1894.

Halsted's leadership in scientific surgery was established by his introduction of the aseptic technique in surgery, by his using cocaine in nerve blocking; by his operation for hernia and his radial operation for cancer of the breast; and his experimental work in goitre.

Osler did not make important discoveries in medicine, but he was among the first to stress the relationship of pathology and bacteriology to practical medicine. Osler's *Practice of Medicine,* first published in 1892, was an important factor in raising medicine from the slough of empiricism, into which it had fallen, to a science. Edith Gettings Reid, one of Osler's best biographers, said of Osler's text book: "A wonderful book. Indirectly it created the Rockefeller Institute for it caught Mr. Rockefeller, (Jr.) by its lucidity." Cushing said: "It [Osler's *Practice of Medicine*] contributed to the incalculable benefit of humanity which the General Education Board has rendered with Mr. Rockefeller's money, owing to its interest in the prevention and cure of disease. Indeed the present position of his colleague, Welch, as director of the Institute of Hygiene, is remotely due to the fact Osler set himself thirty years before to write a text book of medicine."

Sir William Osler, later regius professor of medicine at Oxford, did more to advance and popularize medical science in English speaking countries than any man who has lived.

Kelly developed scientific gynecology far beyond the stage that Sims left it when he died in 1883, and advanced it farther than Sims' protégés, Emmett, Gaillard, Thomas and others had done. Kelly made Johns Hopkins, and his own private hospital in Baltimore, the mecca—as the Woman's Hospital in New York had been—to which surgeons interested in the surgery of women flocked, to learn the best of everything in gynecology. Kelly devised many new instruments, including those for cystoscopy and the diagnosis and treatment of disorders of the ureters and pelvis of the kidney. Kelly's books—illustrated by Max Broedel, whom he brought from Germany to Johns Hopkins—*Operative Gynecology* in 1898, *Medical Gynecology* in 1912, and *Gynecology* in 1928, are the greatest contributions to the literature on scientific gynecology that have been published.

At the end of the nineteenth century, "the big four," Welch, Halsted, Osler, and Kelly, were without peers as champions of scientific medicine and surgery; and the Johns Hopkins Medical School had assumed the leadership in medical education in the United States. Baltimore, however, was not the only city in which great progress was made in the advancement of all branches of medicine. Early in the twentieth century, the faculties of Harvard, Yale, Columbia, Cornell, Pennsylvania, Michigan, Washington (in St. Louis) and other then leading medical schools, adopted German methods of asepsis and developed their laboratories until they were as good, or better, than those at Johns Hopkins. A great medical center, the Mayo Clinic, was developed in a Minnesota small town. Rochester, Minnesota, became a medical centre for ambitious surgeons who desired to learn the latest methods in surgery and medicine.

Germany lost her leadership in medicine when she followed the *ignis fatuus* of world domination in World War I; and as far as the science of medicine is concerned, she was made totally bankrupt by the Hitler dynasty. The United States is far in the lead of any, and all, other nations in scientific medicine and surgery in the middle of the twentieth century.

We are living in the Golden Age of medicine, made possible by the vision and courage of pioneers in the last half of the nineteenth century. Miracles after miracles have been wrought by many scientists in many research laboratories in the last four and a half decades. The science of nutrition, including the discovery of vitamins, developed largely in the United States, is of far-reaching import in the upbuilding of mankind. Public hygiene, beginning with the sanitation of Cuba and Panama Canal Zone from 1900 to 1910 by William Crawford Gorgas (1854-1920); and extended by the development of state departments of health, with health units in every city and county in our nation, is eradicating the contagious and communicable diseases from the confines of the United States. American methods of public health administration are being adopted by other nations, particularly in Central and South America, to the betterment of many million people. The saving of human lives is of greater importance than curing the sick, and that American viewpoint is being adopted by all nations.

Among the most important of the miracles of the twentieth century are the insulin treatment of diabetes, discovered by Banting and Best at the University of Toronto in 1921; liver therapy in pernicious anemia and avitaminosis by Minot and Murphy at Harvard University in 1926; the sulfa drugs (chemotherapy), partly of German origin, but developed largely in the United States, in the treatment of pneumonia, meningitis, septicaemia, and many other infections; and penicillin, which not only is displacing the sulfa drugs in dramatic cures of pneumonia, meningitis, septicaemia, and all pyogenic infections, but is curing syphilis and gonorrhoea in an incredibly short time. The discovery of penicillin should be credited to Sir Alexander Fleming of Oxford University, England; but methods for the manufacture and distribution of penicillin on a large scale were worked out largely in laboratories in Canada and the United States. Miracles in abdominal surgery, neuro-surgery, chest surgery, bone and joint surgery, gynecology, and other surgical specialties are being performed in thousands of operating rooms all over the world because Pasteur, Lister, Koch, and von Bergmann discovered and applied the principles of antisepsis and asepsis in the last half of the nineteenth century. Verily, it is a glorious privilege to live and to practice scientific medicine and surgery in this Golden Age.

Decentralization in Medicine. About November 15, 1918, at a small dinner party in Paris, Colonel George Crile, a great American surgeon, who served with distinction in the American Expeditionary Forces in France, was asked what influence on medical and surgical practice would follow American participation in World War I. He said to an associate by his side, Brigadier-General J. M. T. Finney, chief of surgical consultants: "Finney, I have seen in many operating rooms in Army hospitals in France many surgeons whose names I did not know, from towns in the United States that I never before heard of, doing as good surgery as you and I are capable of doing. Those men have learned the advantages of group practice and when they return home, they will establish hospitals and small clinics to care for medical and surgical cases in their communities. We shall see the decentralization of medicine follow this war."

That Crile was a prophet has been proved by the fact that in the last twenty-five years small hospitals and clinics have been established in a large proportion of towns of over a thousand population in the United States. In many of those hospitals aseptic surgery and scientific medicine are practiced by capable surgeons and clinicians. While the great medical centres are thriving, so are the small hospitals. It is a significant fact that in the year 1945, there are few outstanding surgeons and medical clinicians; but the average of efficiency in medical practice has been raised, until there is little reason for the average medical and surgical patients to leave their home communities for treatment. There will always be difficult cases requiring the service of specialists, with large experience in their respective fields, but the decentralization of medicine will continue. It certainly is true that the citizens of the United States are being cared for when they are sick better and more efficiently than ever before in our history; and in no other country in the world have such advances been made in scientific medicine and surgery.

The altruism of the medical profession has been proved by the fact that American physicians—I believe without exception—have participated in every movement directed toward the prevention of disease. All that has been accomplished in the prevention and cure of disease has been due to the initiative and devotion to duty of individual physicians, who have been unhampered by government direction. The movement on foot by socialistic theorists, labor unions, and vote seeking politicians, to regiment physicians into state medicine, if successful, will lower the standards of medical practice, give cheap and inefficient service to the sick, and stifle progress in the science of medicine and surgery.

REFERENCES

1. James Marion Sims: *The Story of My Life.* D. Appleton & Company, New York, 1886.
2. Haagensen, O. D. and Lloyd, Wyndam, E.B.: *A Hundred Years in Medicine.* Sheridan House, 1943.
3. Haggard, Howard W.: *Devils, Drugs, and Doctors.* Harper and Brothers, New York and London, 1929.
4. *The Columbia Encyclopedia;* Columbia University Press, New York, 1837.
5. Garrison, Fielding H.: *An Introduction to the History of Medicine.* W. B. Saunders Company, New York, 1929.
6. Finney, J. M. T.: *A Surgeon's Life* G. P. Putman's Sons, New York, 1940.
7. Reid, Edith Gittings: *The Great Physician.* Oxford Press, London, New York and Toronto, 1931.
8. Cushing, Harvey: *The Life of Sir William Osler.* at the Clarendon Press, 1925.
9. Knox, Rhoda: *Joseph Lister, Father of Modern Surgery.* The Bobbs-Merrill Company, Indianapolis, 1944.
10. Wilson, Charles Morrow: *Ambassadors in White.* Henry Holt and Company, New York, 1942.
11. Kelly and Burrage: *A Cyclopedia of American Medical Biography.* W. B. Saunders Company, 1912.
12. Congressional Report on Ether Discovery—Honorable Edward Stanley of North Carolina and Honorable Alexander Evans of Maryland. Thirty-second Congress, first session, 1852.

THE SET OF THE SAIL

One ship drives east, another drives west.
  While the selfsame breezes blow;
'Tis the set of the sail and not the gales,
  That bids them where to go.

Like the winds of the sea are the ways of fate,
  As we voyage along through life;
'Tis the set of the soul that decides the goal,
  And not the storm and strife.

—Ella W. Wilcox (1855-1919)

Female Sterility Studies*

W. A. BEACHAM, B.A., B.S., M.D., F.A.C.S.*
New Orleans, La.

All of us who practice obstetrics now have first-hand knowledge of the fact that there is an upsurge in the birth rate in this country during the time of war; furthermore, we have been impressed by the number of childless couples who have come seeking relief from their barrenness. Fortunately much progress has been made during the past decade in the study of sterility cases; consequently, we can now offer that group of individuals intelligent study of their problem with the prognosis of a happy solution in the great majority of cases. No longer need the physician suffer the embarrassment which used to come about as the result of a patient bringing forth her own baby within a year or two after she had adopted an infant due to the fact that she had been told that she could never get pregnant.

Gynecologists generally define sterility as the inability to conceive although in the strict sense of the word it means inability to reproduce offspring. Several types are recognized, including the following: **primary,** in which the patient has never conceived; **secondary,** which indicates that pregnancy has previously occurred; **relative,** denoting a condition in which the ability to conceive is lessened but not absent; **absolute,** meaining complete although not necessarily incurable inability to conceive; and **one-child sterility,** in which instance the wife becomes sterile after bearing a single baby. In the literature the last mentioned is found in connection with uterine fibroids although in this locality we see many multiparae with numerous myomata.

It is now unanimously agreed by persons conducting sterility studies that determination of the status of the male should precede a detailed investigation of the female. It is a good rule to insist upon complete examination of the male after a careful history has been obtained. The reproductive organs should be thoroughly examined and the prostatic and seminal vesicular secretion must be studied grossly and microscopically. In the wet preparation one looks for pus cells, erythrocytes, trichomonads, fungi, and other abnormalities; while in the Gram stained material the organisms are classified. As a matter of routine a complete "blood picture" and serologic tests for lues are obtained. A condom collected specimen of semen should always be examined. The Huhner's test must not be substituted for such an examination inasmuch as we wish to know the amount, reaction, and gross characteristics of the seminal fluid at the time of its ejaculation. Obviously, we should study the spermatozoa as to morphology, number, motility, and endurance. A basal metabolic rate and other indicated determinations should be made.

In the case of the female, once again we must stress the importance of obtaining a complete history and of performing a thorough physical examination. The historical data must begin during early childhood with particular emphasis on diseases which migh cause sterility. Information regarding the menarche with a story as to the behavior of the "menstrual periods" is very important. One must know about the occurrence of dysmenorrhea or other abnormalities of menstruation. It is very important to know whether the patient has ever been pregnant. One of the most pathetic types which may be encountered is the one who gives a history of a sterilizing pelvic infection which followed an inducted abortion shortly after marriage at which time she and her husband agreed that they could not afford to have a baby. In later years the same couple may have accumulated considerable goods of this world, but due to their early folly they cannot have that which they most desire—offspring of their own. However, here again they can be told the facts after proper investigation.

The history in infectious diseases, operations, and intra-abdominal catastrophes are all of paramount importance. Sexual history reveals facts as to libido, orgasm, dyspareunia, frequency of coitus, time of intercourse with reference to menstruation, effluvium seminis, contraceptives, and the like. If the husband has been previously married, it is important to ascertain if his wife became pregnant.

---

*Assistant Professor of Clinical Gynecology and Obsletrics, Tulane University of Louisiana School of Medicine.

Physical examination must be thorough in every sense of the word. The external and internal genitalia require very careful scrutiny. The pH of the vaginal and cervical secretions should be obtained, and wet as well as Gram-stained preparations should be studied. Material obtained from the urethra and Skeene's glands is similarly stained as a matter of routine. Particular attention is paid to the cervix uteri regarding its position, size, shape, and the presence or absence of the following: erosions, eversions, nabothian cysts, lacerations, polypi, and other new growths, etc. The character, gross and microscopic, as already mentioned, of the secretion present in the cervical canal is of considerable importance; furthermore, we must test the patency of the canal and the mobility of the cervix. The corpus uteri is examined as to position, size, shape, consistency, and mobility. In a given case uterine retroversion may be responsible for sterility, nevertheless one should not be too hasty in explaining the patient's barrenness on a malposition. The correct use of a Hodge or Smith pessary may prove very advantageous in such a condition. By vagino-abdominal and recto-vagino-abdominal palpation one should examine the ovaries and salpinges as to position, size, shape, consistency, and mobility. The elicitment of abnormal tenderness calls for proper evaluation. In this connection, it seems hardly necessary to say that catheterization prior to pelvic examination not only provides an ideal specimen of urine for gross, chemical, and microscopic study, but also insures a state of emptiness of the urinary bladder which is important to both examiner and patient. Blood is regularly obtained for tests for syphilis and sedimentation rate. A complete "blood picture" and subsequently basal metabolic rate determinations are indicated. Special blood studies, such as that of the Rh factor, should be done in cases who give a history of spontaneous abortions.

Provided the husband has successfully passed his tests, the next step is to make a post-coital investigation of the vaginal and cervical canal contents noting the average number of spermatozoa present per high power field and the condition of the sperms. Once again wet and stained preparations must be studied. Cases of cervico-seminal incompatibility respond nicely to therapy.

The next step is to determine whether or not the patient ovulates. It would be to our diagnostic advantage if all women noticed Mittelschmerz or slight intermenstrual "spotting," but seldom is the sterility case so lucky. Our best method then to check up on ovulation in the endometrial biopsy. Agreeing with Dr. Edwin Hamblen, I prefer to obtain the endometrium within twelve hours of the onset of the menstrual flow. In a few cases the specimen for histological study is obtained within a day or two of the anticiptated menses, bearing in mind the fact that a very early pregnancy might be interrupted by such a procedure. The Novak suction curette and the Burch uterine biopsy forceps are both quite satisfactory for securing the tissue. During the past two years the sterility patients who have sought my advice have been instructed to keep basal temperature records, but the majority of these records have not proved very valuable in estimating the time of ovulation. However, important information is placed on such records and my patients will be asked to continue to keep them. Recently the Planned Parenthood Federation of America, Inc., 501 Madison Avenue, New York 22, N. Y., has made available for three cents each basal temperature charts and accompanying instruction forms.

The next procedure is the testing of tubal patency, for which I prefer hysterosalpingography. Such roentgenographic studies have the following advantages over insufflation tests: 1) there is a record in black and white of the status quo, 2) the site or sites and extent of obstruction is or are accurately localized, 3) the internal configuration of the uterus is determined, 4) the position of the uterus is shown, and 5) the size, contour, length and position of the unoccluded lumina of the salpinges are demonstrated. Some of us contend that the use of hysterosalpingographic media is less dangerous than the employment of gas in that the former is subject to better control in that it gravitates down into the cul-de-sac of Douglas while the latter tends to rise up under the diaphragm, and secondly that the radio-opaque media is at least bacteriostatic. My personal experience with skiodan-gum acacia solution (introduced by Dr. Paul Titus and sold by the Winthrop Chemical Company) has been such that I employ it routinely. Inasmuch as both skiodan and gum acacia can be injected intravenously, they make a very nice solution to be instilled into the uterus and tubes with the hope of spillage into the peritoneal cavity. The skiodan is absorbed from said cavity and is excreted by the kidneys, a fact which we have demonstrated roentgenographically, Obviously, aseptic technique must be employed and proper judgment must be exercised if complications are to be avoided. The literature contains accounts of catastrophes following tubal insufflation tests but these should be blamed upon the investigator in each instance and not on the test.

SUMMARY AND CONCLUSIONS

1. The number of persons seeking information regarding female and male sterility has increased appreciably during the past three years.

2. Determination of the status of the male *must* precede a detailed investigation of the female.

3. In studying the wife, one must obtain a complete history and perform a thorough physical examination. It is necessary to obtain the pH of the vaginal and cervical secretions which must be studied as wet and stained preparations. Vagino-abdominal and recto-vagino-abdominal operations must be performed with accurate thoroughness.

4. Serologic tests of syphilis, blood sedimentation rate, and complete "blood picture" are a part of the routine. Basal metabolic rate determinations and special blood studies should be made as indicated, after the performance of a Huhner's test.

5. The matter of ovulation is best checked by endometrial biopsy. The history of Mittelschmerz or slight intermenstrual "spotting" is of historical value. Basal rectal temperature records should be kept but should not be substituted for microscopic study of the endometrium.

6. The best method of testing patency of the fallopian tubes is hysterosalpingography. The advantages of hysterosalpingographic studies over salpingal insufflation procedures are set forth.

7. Figures are shown demonstrating hysterosalpingographic findings in five cases investigated from the sterility point-of-view.

8. In a subsequent article, the management of sterility in the female will be discussed.

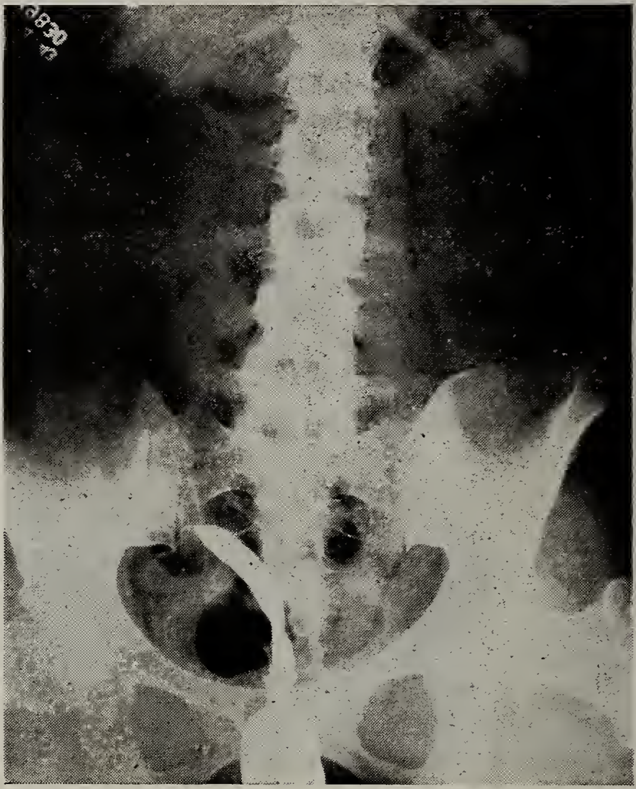


Fig. 1. — Hysterosalpingogram showing a unicornuate uterus with occlusion of the salpinx in its distal third due to postoperative adhesions. Salpingostomy has been recently performed.

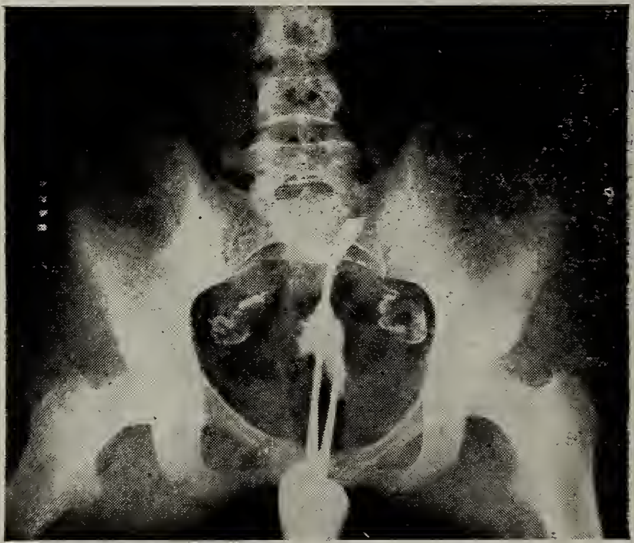


Fig. 2. — Bicornuate uterus with roentgenographic demonstration of bilateral tubal patency.

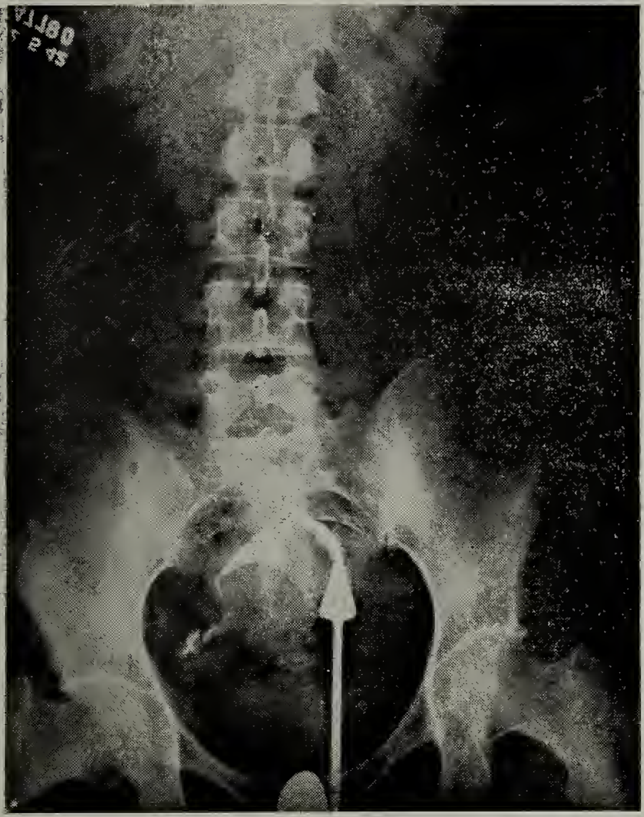


Fig. 3. — Hysterosalpingographic evidence of third degree uterine retroversion. The left fallopian tube is not visualized due to insufficient radio-opaque material.

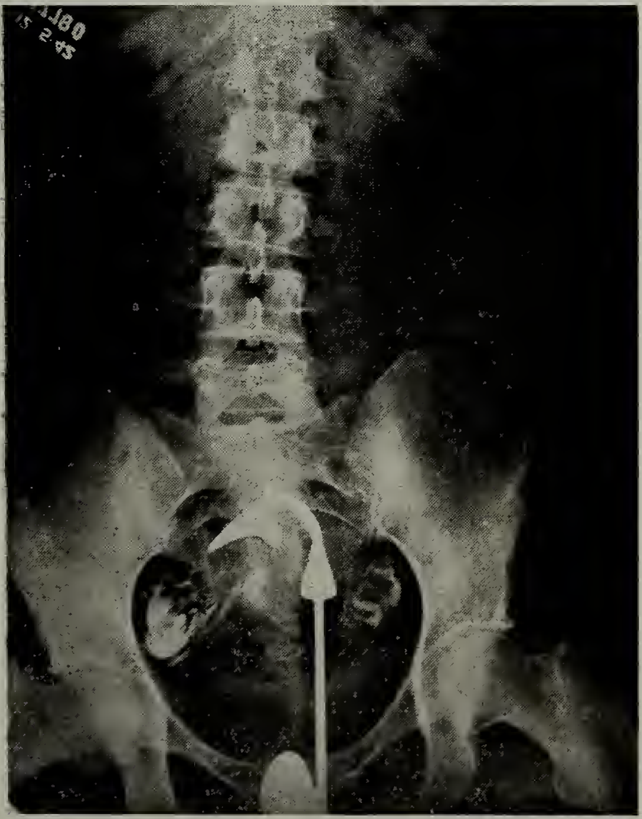


Fig. 4. — Same as Figure 3 plus visualization of left tube. The use of a Hodge pessary resulted in conception in this 38 year nullipara. She was sectioned at term six months ago.

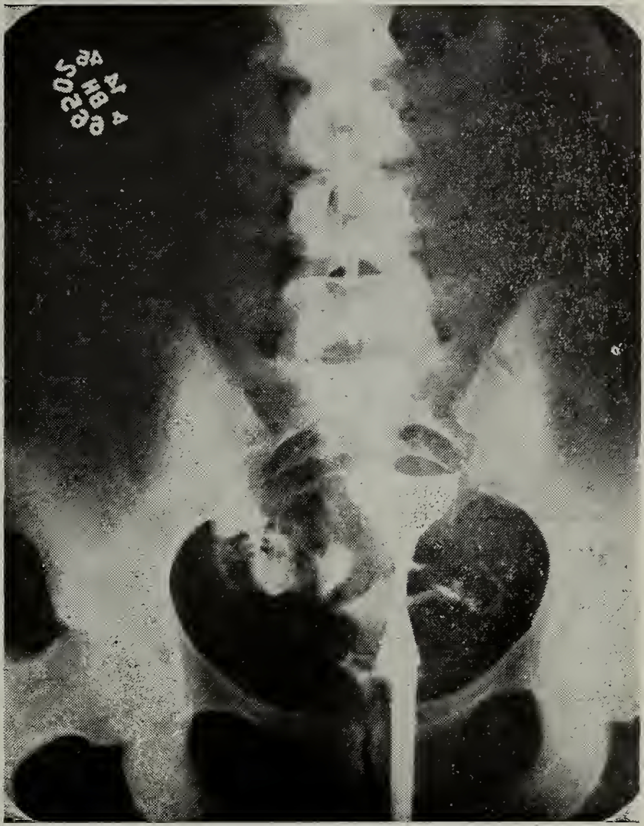


Fig. 5. — Normal X-ray findings in a 32 year nulligravida who has regular anovulatory menstrual cycles.

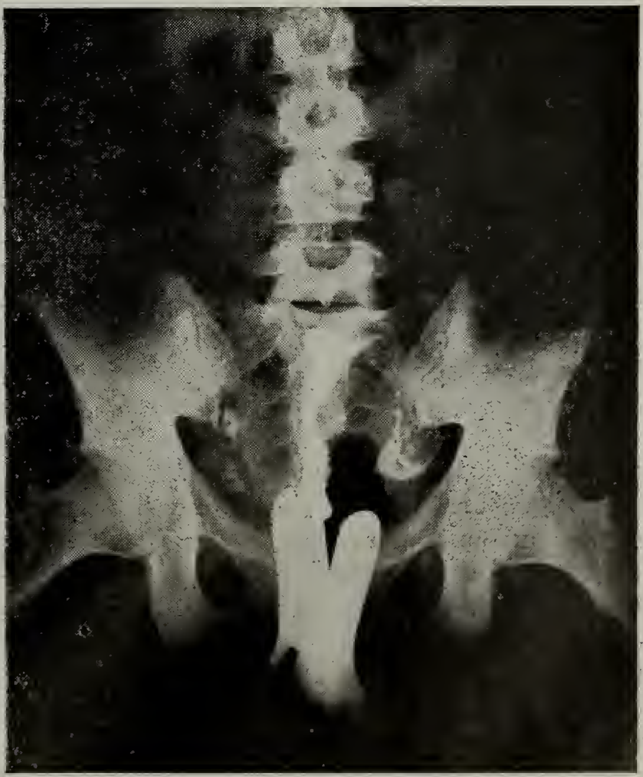


Fig. 6. — Normal uterosalpingographic picture after hysteropexy and myomectomy. This patient has been recently delivered of a normal male at term.

Separation of the Medical Profession from the Armed Services

J. P. WALL, M.D.*
Jackson, Miss.

There is a lilt to a martial air, a glamor to the uniform and a fascination to orderly array that appeal to red-blooded men. In all of us these is something of the hero and hero-worship. Especially is this true, when our hero is a conquering one.

That the medical profession of Mississippi has demonstrated its true worth is evidenced by the fact that its members volunteered their services to this great nation in its time of peril — a time that was a challenge, not so much to our way of living, but even to the right to live.

Mississippi doctors volunteered for duty because they had that indescribable, intangible, and ineffable quality that is known as a "sense of duty". Of the entire group of Mississippi doctors there were only six who put personal interests above those of their country and declined to accept commissions when tendered them. However much these men may rationalize as to why they refused, still the fact remains that they offered words when deeds were needed.

The Mississippi State Medical Association in its annual meeting in 1943 instructed the councilors of the nine councilor districts of the state to name from every county an advisory committee to the state chairman of the Procurement and Assignment Services for Physicians. The state chairman has invariably, with one exception, followed the advice of these committees, when this advice was sought. These committees were and did act in an advisory capacity, for which the state chairman hereby acknowledges their great help, without which his work could not have been carried on, and expresses to them his thanks for the impartial way in which they have served the profession and the nation in this work, that did require wisdom, justice and fidelity to a trust. These committees, as their entitling would indicate, acted in an advisory capacity to the state chairman, on whom, after all, did rest the responsibility in every case for final judgment.

As of April 15, 1942, there were in the state of Mississippi 1330 doctors. This, mind you, included all classes, those who were active, partially active and inactive.

Of this number 314 volunteered their services. Seventy-nine were declined because of disabilities. Four were declined for reasons other than physical. Seventeen have been separated from the services, receiving honorable discharges. This leaves 214 men in the services as of September 1, 1945.

Now since V-J Day has come with all of the glorious prospects of an early return to their homes of these men who have gone to the far-flung theaters of operation, have risked their all that we might live, they are wondering when and how they may be permitted to resume their places in a civilian capacity.

From the press it is known that there will be substantial reductions in the fighting forces, and, accordingly, the medical corps may be expected to share also in this demobilization process, but it must be remembered that:

1. Time will be necessary for personnel to complete their work in foreign areas and return to this country.
2. There probably will be replacement of medical department personnel in foreign occupational zones by those who have not had overseas duty, and of an age below the draft limit.
3. There still remains a necessity of maintaining a high standard of medical care.
4. It may be expected that for several months the evacuation of the sick and wounded will continue.
5. That the heavy load of hospital patients in this country will continue for at least six months longer.
6. That the shrinkage in medical officers will not be in the same proportion as the reduction of the armed services as a whole.
7. That the quota of 60,000 medical officers reached approximately 55,000.
8. That the demobilization of the armed forces means every man and woman must be given a thorough physical examination.

---

*Chairman of the Procurement and Assignment Service for Physicians of Mississippi.

The following may be taken as what to expect:

1. Officers whose services are essential to the armed forces will not be separated from the services.
2. Officers from 50 years, whose specialist qualifications are not needed within the services will receive a high priority for release from active duty.
3. Adjusted service rating will be utilized as a definite guide to determining those who are to be separated from the services.

The procedure for a doctor desiring to get out of the services, so far as to the Procurement and Assignment Services for Physicians is concerned, is as follows:

1. The officer addresses a letter, in triplicate, to the state chairman, indicating that it is his intention upon discharge to return to a certain locality to resume the practice of medicine.
2. Statement, in triplicate, from the advisory committee of his county that he is needed in the home location.
3. On receipt of this data, the state chairman fowards it to the Appeal Committee in Washington, who passes on the state chairman's recommendation.
4. On receipt of the action of the Appeal Committee in Washington, the state chairman then forwards two copies of the report of the Appeal Committee, two copies of the statement of the advisory committee of his county to the officer in question, and then the officer passes this data through channels up to the Adjutant General, who will determine whether this officer is to be separated from the services — his decision resting mainly on the question whether a "suitable replacement is available."
5. The experience of this office has been that the more forcible and hearty the endorsement of the officer's immediate superior commander, the better are the changes of the final approval of his application.

Again, permit the state chairman to express his thanks to the medical profession of our state for the whole-hearted way (with a few exceptions) they have coöperated, the spirit that has characterized their action, the unselfish aid of the advisory committees, and the headquarters of the state Selective Service system and the Mississippi State Board of Health for its aid in carrying on a work essential for our country's cause.

CAMPBELL-KENTON COUNTY
MEDICAL SOCIETY OF KENTUCKY
Invites you to
CINCINNATI
FOR THE
SOUTHERN MEDICAL ASSOCIATION'S
Victory Meeting
NOV. 12-15 1945
OHIO
KENTUCKY

THE VICTORY MEETING of the Southern Medical Association will be held under the sponsorship of the Campbell-Kenton County Medical Society of Kentucky in Cincinnati, Ohio, November 12-15. **It is a Kentucky meeting.** The Southern Medical Association meetings always have been and always will be the **essential** meetings IN and FOR the South. The Southern as an **essential** medical organization has carried on without a break during the war—it has not missed a meeting. Now it will celebrate the victory with a great VICTORY MEETING. In its twenty-one sections, two general sessions, six conjoint meetings, and the scientific and technical exhibits, in a streamlined program, one will get the last word in modern, practical, scientific medicine and surgery.

REGARDLESS of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Cincinnati a program to challenge that interest and make it worth-while for him to attend.

ALL MEMBERS of State and County medical societies in the South are cordially invited to attend. And all members of state and county medical societies in the South **should be** and **can be** members of the Southern Medical Association. The annual dues of $4.00 include the Southern Medical Journal, a journal valuable to physicians of the South, one that each should have on his reading table.

SOUTHERN MEDICAL ASSOCIATION
Empire Building
BIRMINGHAM 3, ALABAMA

The Mississippi Doctor

Published monthly at Booneville, Mississippi

Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

OFFICIAL ORGAN OF
Mid-South Postgraduate Medical Assembly
Mississippi State Medical Association

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ... ... Assistant Editor

David E. Guyton, Blue Mountain College ...... Poet

Mid-South Postgraduate Medical Assembly

OFFICERS:

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.
A. F. Cooper .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

EDITORS:

Fay H. Jones, M.D. E. M. Holder, M.D.
C. R. Crutchfield, M. D. C. M. Speck, M.D.
H. King Wade, M. D. F. M. Acree, M.D.

Mississippi State Medical Association

EDITOR

Lawrence W. Long, M.D.

ASSOCIATE EDITORS

T. G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

Our readers are no doubt enjoying the two parts of Dr. Seale Harris' treatise on Marion Sims and other nineteenth century pioneers. We appreciate this article from the pen of Dr. Harris. Interesting and well written, it unfolds almost like a romance. The medical public is anxious to have Dr. Harris' books on Banting and Sims and others. In Dr. Harris is embodied the spirit of Southern medicine, patroit, scholar, and courtly gentleman.

The four-year medical school, the medical school hospital, and the state hospital system. are as the driver, the vehicle and the motive power of a planter. It takes all three to get the job done. The four-year school is the driver, the doctors, nurses and interns in and out of training, constitute the power, and the hospital system with its equipment is the vehicle in which the service is delivered. It seems now that it is time for Mississippi to own and till her lands and quit working on the shares.

Blue Cross Insurance is on its way to Mississippi we believe. It will bring with it a great blessing. It is good not only to pay as one goes, but to pay in advance for sickness that may come any time. If it does not come one is the more fortunate and at the same time helps others. It is now stated that Blue Cross has 18,800,000 members. Seventeen thousand per day are now joining. The big challenge to Mississippi now is a hospital system that will enable every person who wants it to have Blue Cross Insurance.

Thanks to Dr. Allen E. Cox for his renewal to the *Mississippi Doctor*. He is a past president of the Mid-South and one of the cornerstones of this organization. He suggests that the Mid-South have a meeting in February so as to begin functioning again. This is worthy of serious consideration.

News and Comment

NORTHEAST SOCIETY HONORS MEMBERS

The third quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society met at Amory on September 11, 1945. It has been customary to meet once a year in Monroe County to do honor to Dr. G. S. Bryan of Amory.

The meeting was called to order by President W. J. Aycock with Secretary W. H. Cleveland at his place. In vain the audience awaited the sage of the State Medical Association and the spirit of our Thirteen Counties Society. His spirit could be felt, but his person could not be seen.

Dr. V. B. Philpot asked for the privilege of the floor and read a message from him as follows:

FROM DR. BRYAN

Written to be read at the past meeting of the Northeast Mississippi Thirteen Counties Society in Amory.

The lines that convey this message to you are the first that I shall have written since I fell sick on the fourteenth day of last January. I will try to make this message brief.

This society had its beginning in 1903. I was a charter member and have been a constant attendant upon its meetings. When I became a member I enlisted for the "duration". I was deeply interested in the work it undertook to do and I soon learned to love its membership both collectively and individually. Many of the happiest experiences of my life came to me through my contacts with its membership. I am also very fond of the members of the Ladies' Auxiliary. They are entitled to this fondness in their own right, but it is based largely upon my love for their husbands.

It is probable that I shall never be able to discharge the duties of active membership in the society again. So I ask and will plead with all of you to resolve that the ideals and high purposes of the society shall never be allowed to grow less. Please do not permit policies to be influenced by selfish motives, but be ready, at any and all times, to back and support every measure that can be helpful in forwarding progressive medicine or in elevating professional standards. I want to thank you all for the many ways that you have been helpful to me during the many years that we have been associated together. Many of you are growing weary with the weight of accumulating years as am I. Be strong and courageous for yet awhile.

To the younger members who will soon be relieved from military duties, we older ones hand you the torch — we have striven to hold it high in your absence. We have faith in you. We hope, yea we know, you will not let it be lowered.

Now a request of a personal nature. Since I may not mingle with you as in the past, please visit me in my home or wherever I may be found. I look forward to your visits as the chief source of future pleasure.

In conclusion, may God bless you all, both collectively and individually. *Au revoir!*

G. S. B.

Dr. W. A. Evans of Aberdeen now obtained the floor and read the following:

Change in By-laws of Northeast Mississippi Thirteen Counties Medical Association by adding to Section 2 "Members" next to the last paragraph by inserting after word societies, Honorary, A section 3, now reading "Honorary Fifty-Year Club Members". Physicians in the boundaries of this District Medical Society who graduated fifty or more years prior to the meeting of election shall be eligible for a button and certificate setting forth the facts. These emblems shall be bestowed at a public meeting.

As such member he shall be freed from the obligation of paying dues. As such member he shall have the rights in this Society and the State Medical Association of attending meetings, taking part in scientific and business discussions, of voting, and of election to office including committee membership.

Amendment adopted September 11, 1945 at the regular meeting of the Society at Amory, Mississippi.

He also offered an amendment to the state constitution to be acted upon at our next meeting. Both were adopted and the chair appointed Drs. R. B. Caldwell, V. B. Philpot and W. H. Anderson to carry the latter before the House of Delegates at its next meeting and see that it is voted upon.

A motion was made and passed without a dissenting vote to make Drs. G. S. Bryan, W. A. Evans, J. Rice Williams and W. C. Walker honorary members of the Northeast Mississippi Thirteen Counties Medical Society. The president appointed a committee to convey this message to Dr. Bryan and to reply to his letter just read. The committee, composed of Drs. W. A. Evans, V. B. Philpot and W. H. Anderson, proceeded to the residence of Dr. Bryan where they were cordially received and the message delivered, with Dr. Evans as spokesman.

"Dr. Bryan, we come as messengers from the Northeast Mississippi Thirteen Counties Medical Society in session at the Park Hotel. Your letter was read to the doctors present. It was received with a deep interest and with a feeling that evidenced brotherly love and with an appreciation of your life work and your active, safe, and progressive leadership in this society for so many years. It was received like a final message of a father to a son, but there was evidence of earnest hope that you may be able again to attend the meetings, may we say, of *your* Society. This society expresses the prayerful hope that you may have many more years of activity, but at the same time it assures you that you have already lived a life of oustanding accomplishment to organized medicine, to your clientele in practice, and to your town and state as a citizen.

"We also wish to inform you that first on the list today you have been made an honorary member of this society on having practised as a physician for fifty years or more tised as a hysician for fifty years or more and that it hopes you will be first to be so honored at our state meeting next year as a member of the Fifty-Year Club.

"We hope for further restoration of your health that we may be able further to profit by your knowledge and your wisdom."

PROPOSED AMENDMENT TO STATE BY-LAWS

Purpose:

To stimulate interest and continued attendance in state and local medical societies of physicians over seventy years of age and to encourage the adoption of hobbies, principally medical history, of the members of this club.

Machinery:

A club shall be composed of physicians who have been in practice fifty years to be known as the Fifty-Year Club*. This club shall be at the time of the annual meeting of the State Medical Association in one session, to be organized and operated under the auspices of the State Medical Association Method. When evidence becomes available which evidence shows that a given physician was graduated from a medical college fifty years ago the component medical society (county or district) to which he belongs shall elect him to honorary membership and have a public meeting attended by the profession, visitors, mayor and other citizens. At this meeting the special classification shall be accompanied by a note, speeches, music, banquet and presentation of button and certificate setting forth membership to the honorary club, the Fifty-Year Club.

The secretary of the component club shall notify the secretary of the State Medical Society and the executive of the Fifty-Year Club.

The person so elected becomes an honorary member of the State Medical Association with rights and duties as such.

To accomplish these ends the Constitution of the State Medical Association and By-laws should be amended as follows:

Amend Article IV Section 4 (last paragraph Volume one, page 39) by inserting new section (Section V) reading as follows:

Any component society may submit in writing the names of such physicians who have been graduated in medicine fifty or more years ago and who live within the limits of that component society and who have been elected by that society as honorary members and whom the House of Delegates shall then elect as honorary members of the state society. The honorary Fifty-Year members of the component medical societies and of the State Medical Association shall not be required to pay dues.

They shall have the duty of attending the annual meetings of the State Medical Association and the regular meetings of the component society to which they belong.

As such members they shall have the rights of partaking in discussions, scientific and business, of presentation of papers, of voting, of holding of office, including committeeships, of the state and component societies and of membership in the Fifty-Year Club.

The Fifty-Year Club shall be considered as a committee of the State Medical Association. It shall be composed of members elected to it by the component societies of the State Medical Association. Its membership shall consist of persons who graduated fifty or more years before the meeting at which they are made eligible.

Its only officer shall be a director and secretary elected by the membership of the club at any meeting thereof. The club shall hold one session a year and this at the time of and in connection with the annual meeting of the State Medical Association.

Its purpose shall be to stimulate continued interest of its members in and attendance of meetings of the State Medical Association, to promote interest in medical hobbies and especially in local medical history.

Change Chapter IX, Page 44, 2nd Col., by inserting after medical education the words Fifty-Year Club.

---

*A suggestion was also made that the limitation be forty years in practice and if the body so determines, where the word fifty occurs a change shall be made to forty throughout the amendment.

MRS. WATES SUCCEEDS DR. GAY

Mrs. Elizabeth Nisbet Wates of Jackson was named state commander of the American Cancer Society at a meeting of the state executive committee, of which Dr. Felix J. Underwood is chairman. The state office of the American Cancer Society will be opened in the Lorenza Building on Amite Street in Jackson. "The program will be carried out on a state-wide basis with a unit captain in each county. We are now ready to begin a concerted attack on cancer which last year took the lives of 1600 Mississippians," said Doctor Underwood.

Doctor Emma Gay of Biloxi, former state commander, has accepted responsibility for the regional medical education program of the American Cancer Society and will also serve as district commander and member of the state executive committee.

PROCUREMENT OF SURPLUS MEDICAL SUPPLIES BY VETERANS

The new veteran priority ruling gives veterans who operate a small business or enterprise the right to purchase surplus property direct from the government through the Smaller War Plants Corporation, rather than buying through regular dealers. A small business or professional enterprise is defined as "any commercial, industrial, manufacturing, financial, service, legal, medical, dental, or other lawful enterprise (other than agricultural) having an invested capital not in excess of $50,000, which a veteran maintains or desires to establish: provided, that he is or will be, directly or indirectly, the sole proprietor thereof or that no person or persons, other than other veterans, have or will have any proprietary interest in the enterprise, singly or together, directly or indirectly, in excess of 50 per cent of either the capital invested in such enterprise or of the gross profits or income thereof."

The procedure for procuring surplus supplies and equipment by veterans was established in Surplus Property Board Regulation, dated 26 May, 1945, certain paragraphs of which are especially applicable to doctors and dentists who are veterans and who may desire to purchase surplus supplies and equipment to establish themselves in their profession. The Smaller War Plants Corporation at present has district offices in ninety-seven of the larger cities of the United States.

The district office for Mississippi is located in the Tower Building, Jackson, Mississippi, telephone 3-4941. At present, there is no indication of the extent to which medical and dental supplies and equipment will be available to doctors and dentists on their release from active duty. Surplus lists will be screened for other federal agencies before becoming available to veteran doctors and dentists.

IN THE SERVICE

Hollandia, Dutch New Guinea
Headquarters
334th Station Hospital
Office of the Commanding Officer
APO 565
SBW/dvh
16 August 1945

Dr. W. H. Anderson,
Editor, *Mississippi Doctor,*
Booneville, Mississippi.

Dear Dr. Anderson;

The recent issues of the *Mississippi Doctor,* which you have been so kind to send, have been received and read with great benefit and pleasure.

After reading each issue, I pass them on to Lieutenant Colonel Erskine Ross of Hattiesburg, Mississippi, who is the chief of surgery in our hospital. Colonel Ross came to us in September of last year and has done an excellent job as chief of the surgical service. Our hospital was in the chain of evacuation of battle casualties from the Leyte and Luzon campaigns. The treatment of all casualties admitted was under the supervision of Colonel Ross and his staff of surgeons. They handled expertly and with dispatch all types of seriously wounded.

It is a compliment to your association to have one of its members accomplish such fine results in treating wounded soldiers here in the jungles of New Guinea.

Your thoughtfulness in adding my name to the mailing list of your fine journal is sincerely appreciated.

Yours very truly,
Buford Word,
Colonel, M. C.

We deeply appreciate the above from our valued friend Col. Word, M.C. We appreciate what he has to say about Lieut. Col. Erskine

Ross. We were in college with Erskine at Mississippi College and at Tulane. He has measured up as we expected. We all feel proud of this son of a noble father in the profession.
—Ed

Book Reviews

Here is the book that everyone needs and a large number will want *Penicillin Therapy Including Tyrothricin and Other Am biotic Therapy,* by Dr. John A. Kolmer of Philadelphia who is so well-known in the medical world. The book is published by the D. T. Appleton-Century Company, New York. It contains 285 pages and is dedicated to Sir Alexander Fleming who discovered penicillin and Sir Howard W. Florey who did so much in developing its therapy. The book gives due consideration to the discovery of this wonder medicine, and its development and production, how to detect it and how to measure the dose. Physical and chemical properties of the drug are explained. Antimicrobial activity and pharmacological and toxic effects are discussed. The administration of penicillin with discussions of the routes and methods used to administer the drug are supplemented with illustrations. The author says that, "in spite of the fact that much is yet to be learned about penicillin in the treatment of disease and especially the dosage, yet sufficient experience has clearly defined certain principles in relation to the importance of bacteriologic and other laboratory examinations, its indications and contra-indications, administration, the need for surgical and adjuvant therapy, prophylactic value and causes for failure in treatment." These phases he discusses.

Special reference is made in the book to penicillin in the treatment of the following types of disease: staphylococcal, streptococcal, pneumococcal, meningococcal, gonococcal, and clostridial.

Dr. Kolmer says that "One of the most dramatic phases of penicillin therapy has been its remarkable success in the prevention and treatment of infections of wounds and burns." He discusses its application.

General consideration is given to penicillin in the treatment of syphilis, primary and secondary, and to its use in the treatment of other miscellaneous diseases.

Timely, authentic, practical—this book is a "must" for the medical student.

Deaths

DR. J. M. FOSTER

Dr. John M. Foster, 65, who died August 9 in a Birmingham hospital, was buried in Nettleton, where he was born February 24, 1880, was graduated from Providence College there and completed his medical training at the University of Tennessee in 1910.

He had lived in Birmingham for 23 years, and was widely known in medical circles. He became ill several weeks ago, and asked leave from his duties at Ketona Home for the Aged. He was also physician for the juvenile court, a member of the American Medical Association and the Jefferson County Medical Association.

He was a Mason, a member of the Knights of Pythias, and a member of the First Presbyterian Church in Birmingham.

Surviving are his wife, Mrs. Birdie Tanner Foster, and a daughter, Mrs. Johnnie McNabb, both of Birmingham, two brothers, O. B. Foster and J. P. Foster, and a sister, Mrs. H. Y. Johnson, all of Nettleton.

DR. M. E. ARRINGTON

Severely injured August 8 when his car crashed head-on into the concrete bridge three miles south of Winona on Highway 51, Dr. Marvin E. Arrington of Vaiden died an hous after being rushed to a Greenwood hospital.

The car was completely demolished and Dr. Arrington pinned in between the front seat and dashboard. It was necessary to pry him loose.

Funeral services were held at the aiden Methodist Church, after which the remains were sent to Brookhaven (Miss.) for burial.

Surviving him are three sisters, Mrs M. D. Stringer of Winona, Mrs. K. C. Moon and Mrs. R. M. Ryan of Jackson, Miss.; and uncle, Dr. O. N. Arrington of Brookhaven.

Dr. Arrington was forty years of age and the son of the late Mr. and Mrs. William O. Arrington of Lincoln County.

Dr. Arrington was graduated from Tulane in 1931, served an internship with Newell and Newell in Chattanooga, Tenn., before accepting an appointment as part-time health officer in Carrol County, July 1, 1933. He was serving in that capacity at time of death.

DR. DEWELL GANN, SR.

Services were conducted September 26 at Benton, Arkansas, for Dr. Dewell Gann, Sr., 86-year-old prominent Saline County physician, who died at his home there. Dr. Gann organized the first Saline County Medical Society in 1903 and later served as vice-president of the Arkansas Medical Society.

We all tend to rise or fall together. If any of us raise ourselves a little, then by just so much the nation as a whole is raised. If any set of us goes down, the whole nation sags a little.

—THEODORE ROOSEVELT

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—**James G. Thompson, Jackson.**

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—**J. F. Lucas,** Greenwood.

Orthopedics—Thomas H. Blake, **Jackson.**

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—**Karl O. Stingily, Meridian.**

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

PEDIATRICS

ACUTE SALICYLATE POISONING—Hartmann, Alexis F., *Journal of Pediatrics,* (March 1945).

It is stated that fatal intoxication is not infrequent and has occurred in about 50 per cent of subjects developing symptoms serious enough to lead to hospitalization. On the other hand, suicidal attempts have often been failures despite ingestion of large quantities of the salicylate drugs. No close relationship between dosage and symptoms exists, but experimental observations indicate that with blood concentrations which are likely to be obtained during "intensive therapy, toxicity may result without the requirement of unusual individual susceptibility.

The writer indicates that studies on the antipyretic effects of the salicylates indicate that their action is chiefly on the hypothalmus, and leads to both increased heat production and heat loss. Pain is relieved chiefly by their depressant action on the optic thalami. Respiration is at first stimulated and then depressed. Following periods of restlessness and excitement, stupor and coma frequently occur. In fatal cases gastric hemorrhages, liver damage and renal injury with functional failure have been described. Reduced coagulability of the blood with hypoprothrombinemia may occur. Depletion of liver glycogen and tissue depletion of vitamin C with increased urinary excretion have been noted. Plant, animal and yeast enzyme systems are affected, and the respiration of rat liver and kidney slices is reduced by M/10 concentration of salicylates.

Seven infants and one four-year-old child have been admitted to the St. Louis Children's Hospital during the last ten years with severe symptoms of intoxication. Three died—exactly the same number as died from sulfonamide drug intoxication during a slightly shorter period. Except in one instance, when a twenty-month-old infant found a box of 5-grain sodium salicylate tablets and swallowed an undetermined number (later vomiting fourteen partially disintegrated tablets), all had been given salicylates from therapeutic reasons, either at the customary dosage of one grain per year repeated every four hours or else no more than four times such amounts. After first showing the relatively mild symptoms of "salicylism," usually within twenty-four hours of the beginning of drug administration, all developed extreme hyperpnoea and became comatose. Four had convulsions. All had real bicarbonate deficit acidosis and very severe evidence of circulatory and respiratory failure for some time before death. One of the fatal cases—the only one—had hyperpyrexia. Two others had moderate fever. The writer felt that in the five cases recovering, the effective treatment was the large quantities of lactate-Ringer's solution and dextrose given over a number of days and until ketosis had disappeared.

His conception of what transpires is this: "At first there is primary hyperventilation because of central stimulation, which leads to a CO_2 deficit type of alkalosis with alkaline urine and moderate compensatory reduction of blood bicarbonate. Then ketosis develops (in one instance also with hypoglycemia) and produces a real bicarbonate deficit acidosis, with a shift to acid urine. Acidemia (reduction of blood pH) may or may not result, depending upon the degree of hyperventilation and whether or not respiratory failure ensues. Ketosis cannot be immediately abolished by administration of glucose or glucose with insulin (the latter to be used with caution because of the tendency toward spontaneous hyperglycemia) and may persist for as long as four of five days, and requires 'neutralization' with repeated injections of Na-lactate or sodium bicarbonate, the former preferred because of its glycogenic properties, its greater safety, and ease of administration. After ketosis is finally abolished, salicylates may still be found in the body fluids and there may still remain hyperpnoea from central action with a shift again of the acid-base balance to that of CO_2 deficit alkalosis, requiring CO_2 inhalation (usually with oxygen) to prevent alkalemia. In fatal cases circulatory and respiratory failure develop.

COMMENT

It is felt that since many of us are giving quite a great deal more of the salicylates now than ever before, it would be well for all physicians to read this article. In the first place, it represents the views and methods of treatment by one of the best authorities in America and on that account should demand the attention of any physician who has the opportunity to read it.

State Board of Health

Felix J. Underwood, M.D.

WARTIME PUBLIC HEALTH SERVICES

Wartime services rendered by the State Board of Health and local health departments covered a wide field and an unprecedented volume of demands. The vital nature of the work needing to be done elicited the fullest response of public health personnel throughout the state, with every individual feeling an added sense of duty and responsibility and gladly assuming the added work which the emergency imposed. As is to be expected when effort is expended on so great a scale, much lasting and constructive good is realized which can be carried over as a peace-time asset. Such has been the case in many areas of the public health field. The gains which have been made will strengthen any future program.

In the Industrial Hygiene Division, the immediate emphasis was placed on increased production of the essential tools of war. By frequent inspection and consultation this division assisted in providing more healthful working conditions for the thousands of war workers in the state. Regulations were adopted covering first aid, safety, sanitation, and reporting of occupational diseases. Nurses and medical services were augmented. Better nutrition programs were instituted in more than a dozen of the larger industries. Equipment was made available to collect and analyze air contaminants such as dust, vapors and fumes which might be toxic to workers. Recommendations were made and followed up to insure that necessary ventilation was provided to remove harmful substances from the workers' environment. Chest x-rays were taken of thousands of workers. It is believed that the activities promoted by the Industrial Hygiene Division brought about improvements which materially reduced absenteeism and accidents and resulted in higher efficiency. Looking to a future of industrial expansion for Mississippi, it is imperative that industrial hygiene services be continued and increased as needed.

The Division of Preventable Diseases Control was unusually active in putting to work new measures for the control of communicable diseases. An extensive program to curb venereal diseases was developed. Special efforts were directed toward the reduction of respiratory infections, pneumonia, meningitis, typhoid fever, typhus, tuberculosis, malaria, whooping cough, measles, and other infectious diseases. All divisions coöperated in carrying out the objectives of this division to keep communicable diseases at the lowest possible ebb. Especially notable was the malaria control work done through the Division of Sanitary Engineering and the diagnostic work of the State Hygienic Laboratory.

The Division of Vital Statistics reports that the death rate in Mississippi has varied but slightly during the past five years, averaging around 9.5 per thousand population. Each year the death rate has been below the national average, the white death rate being one of the lowest in the United States. Fewer deaths were reported to have occurred in the state in 1944 than during any year in the past twelve years. Extremely low levels were reached in deaths from typhoid fever, malaria and pellagra, the combined total being 143. Thirty years ago these three diseases produced 1850 deaths. Tuberculosis in thirty years had dropped from first place to sixth place as a cause of death in the state. The ten leading causes of death in Mississippi in 1914 and in 1944 are as follows.

1914

1. Tuberculosis
2. Pneumonia
3. Pellagra
4. Malaria
5. Diarrhea and Enteritis
6. Early Infancy
7. Typhoid Fever
8. Cancer
9. Accidents
10. Homicide

1944

1. Heart Disease
2. Nephritis
3. Intracranial Lesions
4. Cancer
5. Accidents
6. Tuberculosis (all forms)
7. Pneumonia (all forms)
8. Influenza
9. Premature Births
10. Senility

Oustanding activities of the Division of Maternal and Child Health included:

1. The inauguration of the Emergency Maternal and Infant Care Program in Mississippi for wives and infants of men serving in the armed forces.

2. The development of a Child Guidance program under the direction of Dr. Estelle A. Magiera to assist in alleviating the emotional and social illnesses of children.

3. The inclusion in the general health program of activities designed to encourage a greater sense of responsibility for family planning, with emphasis upon complete physical and emotional convalescence of the mother between births.

4. Refresher courses for Mississippi physicians in obstetrics, gynecology, and pediatrics.

5. The inspection of maternity and nursery hospitals and clinic facilities to insure the best standards possible for protecting the health of mothers and infants.

6. Routine prenatal and postpartum nursing and medical maternity services; also infant, preschool, and school examinations.

In all activities the local health departments have coöperated fully. In addition to routine work, county health departments furnished many special services to the armed forces. Health officers served as examiners for Selective Service boards. Laboratory services were furnished to selectees examined by local boards. Sanitary regulations were enforced and regular inspections made of trailer camps, dairies, food establishments, and of water and sewage extensions in or near cantonment areas. Clinics for treatment of venereal diseases were established and close coöperation given to military personnel in locating contacts. Selectees rejected because of tuberculosis were followed up and sanatorium admittance arranged whenever possible. In carrying out the many wartime health activities much constructive good has been accomplished.

The School Health Service, administered jointly by the State Board of Health and the State Department of Education, received new impetus. In this program special attention is given to training teachers through workshops to enable a broader understanding of health problems. Emphasis is placed upon the correction of children's defects, adequate school lunch programs, the sanitation of the school buildings and grounds, and the provision of safe drinking water and sewage disposal facilities. Approximately 300 high schools participated in the National Victory High School program to furnish physical education, health examinations and recreation to high school age children to encourage a higher degree of physical fitness. Assistance was given in the development of the nutrition phase of the school health program. Aided by the War Food Administration, lunchrooms were established in about 500 schools in the state, a number later expanded to more than 900 schools. Well-balanced lunches were served to more than 118,000 children daily during the school term. Improved food production, food conservation and greater knowledge of food values by adults as well as children are visible evidences of the value of this service. During the summer of 1945, alone, approximately one thousand teachers participated in the workshops.

The Medical Library proved its value as a center of information on all subjects vital to the health interests of the people of the state. Busy physicians, hard-pressed by mounting demands upon their time telephoned or wrote in for needed references; public health workers engaged in one of the broadest of health programs depended on the library to supply needed information to insure the success of their many and varied activities. Physicians, dentists, nurses, laboratory technicians, and special groups devoted to vital health projects, used the Library's resources freely. With its well-rounded collection of six thousand volumes, including many important monographs and long runs of journals, the Library is an imposing asset in the continuing war against disease. Through its services the rapidly expanding scientific knowledge of this period is made readily available.

*****

MISCELLANEOUS NEWS

Mineral Oil vs. Cooking Fats

All over the state tremendous quantities of mineral oil are being sold in grocery stores. Seemingly, large numbers of familiees are using mineral oil for frying, in breads, to make mayonnaise, and for other cooking purposes. This indiscriminate use of mineral oil is dangerous and should be avoided.

First of all, mineral oil has no nutritional value. Only minute amounts are absorbed. But, aside from this negative value, mineral oil may actually be harmful. Mineral oil interferes with the utilization of carotene and the fat soluble vitamins A, D, and K, and also with the utilization of the minerals calcium and phosphorus. Therefore, its continued use may lead to nutritional deficiency conditions. Animal studies indicate that mineral oil may cause lesions of the liver. It seems reasonable to suppose that keeping the intestines coated with mineral oil might interfere with all food utilization.

Since the United States as a whole will probably be short on fat until at least 1946, we need to help people learn to use less fat. Vegetables can be seasoned with butter or margarine. Eggs can be soft cooked, hard cooked, or poached. Bread can be made with less fat in many homes.

MARGARINE—if fortified with Vitamin A, is the equal of butter, nutritionally speaking.

THE ENRICHMENT PROGRAM still needs the active support of every person interested in better nutrition. All of the flour and bread being sold in Mississippi now must be enriched. The chemist has tested samples of all flours blended in Mississippi and found them properly enriched. Many bread samples have been checked, and some of them were not adequately enriched. The bakeries are correcting errors promptly in the case of under-enrichment, however.

Corn enrichment is not as complete as flour enrichment. The wholesale grocers were notified that they must have their stocks cleared of all non-enriched degerminated meal and grits by August 1. All non-enriched meal and grits must be off retail shelves by September 1.

Eleven corn mills were supplying Mississippi with enriched meal and grits before August 1. Four other mills will have their products enriched very soon.

Eleven states and Hawaii now require that all flour and bread must be enriched. Mississippi, Alabama, Georgia, South Carolina and North Carolina also require that degerminated meal and grits be enriched.

*****

Dr. R. D. Dedwylder Completes 25 Years With Health Department

"On July 1, Dr. R. D. Dedwylder completed twenty-five years of service as director of the Bolivar County Health Department. In 1912 he gave up private practice and joined the State Board of Health with the Rockefeller Foundation for the study of hookworm in the South. He stayed with the Health Department until July 1915, when he took a vacation and attended Tulane University for postgraduate work.

"On completion of this work he again accepted a place with the State Health Department and the Rockefeller Foundation in the study of malaria and malaria control. He came to Cleveland at this time with four other doctors and ten technicians to engage in an extensive demonstration of malaria control.

The force was cut at the beginning of the first World War and Dr. Dedwylder and the remaining four technicians were sent to Sunflower County to carry on the study of malaria until 1920.

"On July 1, 1920, Cleveland was selected for the first full-time health departmeent in the state, and one of the first in the South.

Dr. Dedwylder was named Health Officer and Director, and has remained in charge to the present. He has built up the Health Department from the original personnel of a director and four technicians to one of the largest health units in the state."

—*Bolivar County Democrat,* July 5, 1945.

Woman's Auxiliary

President	Mrs. L. J. Clark	Vicksburg
President-Elect	Mrs. Stanley Hill	Corinth
First Vice-President	Mrs. H. C. Ricks	Jackson
Second Vice-President	Mrs. Henry Boswell	Sanatorium
Third Vice-President	Mrs. W. H. Anderson	Booneville
Recording Secretary	Mrs. Geo. W. Owens	Jackson
Fourth Vice-President	Mrs. Ben Walker	Jackson ..
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey Garrison	Jackson

WINONA DISTRICT AUXILIARY

The members of the Auxiliary to the Winona District Medical Society met August 14 at Kosciusko in a joint meeting with the doctors at the Rotary hall. Following a delightful luncheon the members motored to the home of Mrs. S. L. Bailey, president for the program.

Mrs. L. J. Clark of Vicksburg, president of the state organization, was a guest, bringing special greetings and stressing enrollment and publicity of the group's endeavors.

Mrs. Edgar Giles presented the facts of socialized medicine as embodied in the Murray-Wagner-Dingell bill, and how it will affect the medical profession if it becomes law. There was much interesting discussion of the importance of lay information. The group also went on record as heartily approving the proposed medical school and central hospital for Mississippi.

As a final gesture of hospitality the hostess served iced drinks.

TRI-COUNTY AUXILIARY

The Woman's Auxiliary of the Tri-County Medical Society met at Brookhaven on Tuesday, September 11.

Ten members were present: Mmes. O. N. Arrington, B. L. Crawford, W. H. Frizell, H. R. Fairfax, A. B. Harvey, T. F. McDonnell, C. E. Mullins, W. L. Little, J. J. Pittman, and R. B. Zeller

A luncheon was enjoyed with the doctors at the noon hour, after which the ladies retired for their meeting. It was voted to invite the Pike County ladies and the State Auxiliary president to a social meeting to be held in Brookhaven, December 11. Plans were made to increase the sale of *Hygeia,* and carry out health programs.

The meeting was adjourned to meet on December 11.

PHYSICIAN WANTED: Physician for industrial dispensary in South. Must be graduate Class A school. Please write details and give references in first letter. Expenses of interview will be arranged for satisfactory applicants. Write to Medical Director, Box 590, Knoxville 5, Tennessee.

Just

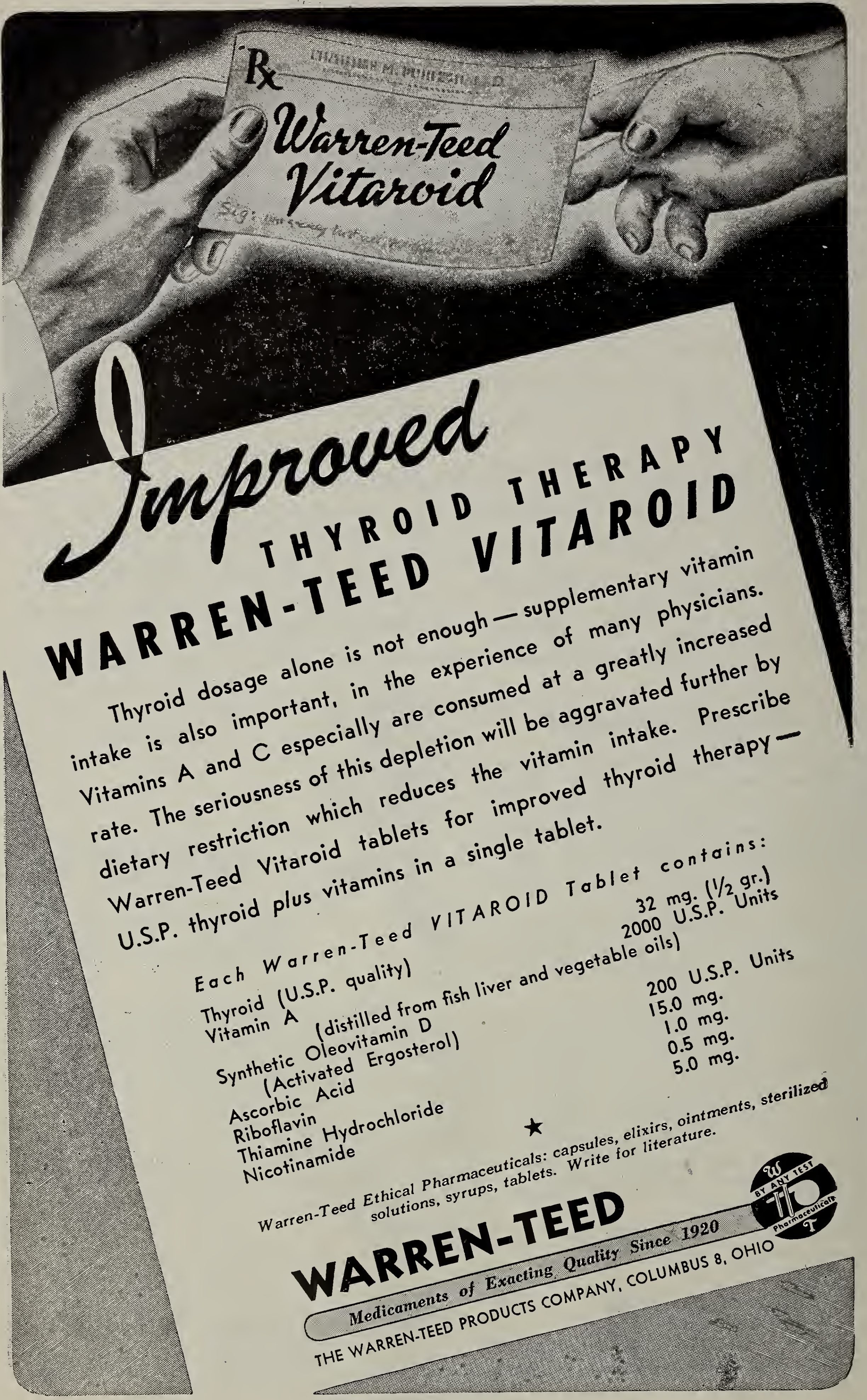
a

MINUTE DOCTOR!

I know you're rushed these days, but have you ever stopped to think about how I am making much of your work easier and better? In the home or in the hospital, you'll always find me on the job. I'm glad to have a part in promoting good health, and believe you'll agree that I am the most economical assistant you have. And the best part of it all is—we both give good service under the free enterprise system!

Your Electric Servant,
REDDY KILOWATT

Mississippi Power & Light Company
Helping Build Mississippi



Rx Warren-Teed Vitaroid
Sig:

Improved

THYROID THERAPY
WARREN-TEED VITAROID

Thyroid dosage alone is not enough—supplementary vitamin intake is also important, in the experience of many physicians. Vitamins A and C especially are consumed at a greatly increased rate. The seriousness of this depletion will be aggravated further by dietary restriction which reduces the vitamin intake. Prescribe Warren-Teed Vitaroid tablets for improved thyroid therapy—U.S.P. thyroid *plus* vitamins in a single tablet.

Each Warren-Teed VITAROID Tablet contains:

Thyroid (U.S.P. quality)	32 mg. (1/2 gr.)
Vitamin A (distilled from fish liver and vegetable oils)	2000 U.S.P. Units
Synthetic Oleovitamin D (Activated Ergosterol)	200 U.S.P. Units
Ascorbic Acid	15.0 mg.
Riboflavin	1.0 mg.
Thiamine Hydrochloride	0.5 mg.
Nicotinamide	5.0 mg.

★

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

WARREN-TEED
Medicaments of Exacting Quality Since 1920
W T BY ANY TEST Pharmaceuticals
THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Blue Cross Insurance and Medical Economics

Guest Editorial

E. D. CAREY, M. D.
Past-President of the Southern Medical and the American Medical Associations
Dallas, Texas

TRUE DEMOCRACY, serving its people in the field of health, has been an ever colorful parade during the past decade. The number of daily volunteers and the magnitude of these voluntary forces are amazing and inspiring.

These united forces, undeterred by opposition, have advanced into a new era in successfully demonstrating a modern American means for the distribution of good health care among the multitude and at a cost all gainfully employed can afford to pay. This force was not created by legislation or compulsory governmental orders. It is the force of voluntary action, truly representative of the American way of life. It has been aided by the medical and allied health professions.

The spearhead, the Blue Cross plans for protection against the costs of hospitalized illness, has enrolled more people in less time than any voluntary program in the history of the world.

This movement began as a cautious experiment in the law of averages. Ten years ago there were approximately 100,000 Americans budgeting their hospital bills through voluntary, non-profit prepayment plans which offered free advice of institutions. At the present time 19,000,000 persons — nearly one-seventh of our civilian population — are covered by Blue Cross Plans in 43 states and seven provinces.

Blue Cross protection is available in 3500 member hospitals which constitute 85 per cent of the bed capacity open to the general public for acute illnesses. The movement is sponsored by 1500 civic leaders from industry, labor, welfare, hospitals and the medical profession. These trustees serve without pay; their only reward is the satisfaction of performing a public service through which Americans can place hospital care in the family budget along with other necessities.

Blue Cross has now moved from the area of cautious experiment to the field of courageous leadership. Public acceptance has grown rapidly. In addition to the 19,000,000 members of Blue Cross Plans, an additional 8 or 10 million receive more or less complete protection through industrial medical service and stock or mutual group insurance policies

There are now 26 Blue Cross Plans coordinated with nonprofit, medically sponsored prepayment programs for physicians' service. The number of such plans is increasing each month, and enrollment may ultimately reach the number of subscribers in hospital plans.

The coördination of medical plans with Blue Cross is consistent with the public's desire for protection against the full costs of hospitalized illness and with the elementary fact that medical attention and hospital care are interdependent factors in the diagnosis and treatment of illness.

The policies and methods of coöperation are in a formative stage, with different degrees of administrative unity, which vary from completely identical to entirely separate corporations and personnel. The ultimate validity of any specific methods of coördination must be tested by public acceptance, quality of service, and the freedom of action and choice provided to physicians, institutions and patients.

To preserve the free enterprise system in this country, any legislation that is as far-reaching as the Wagner-Dingell bill would inevitably lead to a curtailment of free enterprize, even to the point of a managerial form of government taking over the industries as well as the regimentation of medical practice.

In this world evolution plays a very definite part and the trial and error system has solved many problems before great mistakes are made.

The rapid acceptance of prepayment types by industrial units and the more or less philanthropic services of hospitals and medical practitioners is preserving some of the underlying principles which lead to the progress of the medical sciences and the happy attitude of the profession towards patients, which should be given every consideration before any federal interference which the medical profession believes would be harmful to this progress and a lack of such progress definitely harmful to the welfare of the same.

No other country has made such rapid strides in medical service. In no other country has there been the same spirit of service, where men have given not only of their time and talent but their money to prevent and to cure disease. They have done this because of their love of their profession, the pride they have in accepting progressive accomplishments and redistributing medical knowledge among themselves for the common good. Any invasion of medical ideals and medical willingness to foster this coöperative effort would be felt by the people who wish the best in medical practice for themselves.

Non-profit medical and surgical programs are now being rapidly developed in harmony and in conjunction with Blue Cross hospitalization. This adds greatly to the solution of all catastrophic illnesses. The great insurance companies now see their way clear, through better actuarial data, to take care of many thousands of the employed on a more satisfactory basis for employer and employee.

Free enterprize is at work. Progress is being made. The people are the ones to be grateful that a hurried solution of medical and surgical service and hospitalization is not precipitated along incorrect lines.

In conclusion I would like to say that I have always been embarrassed to be on the negative side of any question. I am much happier to be an advocate of something that seems right and progressive than to remain static or in opposition.

There have been two or three bills introduced recently which have definite merit. The Hill-Britton bill which would make possible the development of hospitals where needed is in line with the thought I expressed as president of the Southern Medical Association in 1920. I expressed the thought that well trained doctors would not remain in small towns or in the country unless the city-county units provided the necessary service for them to do scientific work. Then there is another bill in Congress for providing funds for research and this is a comprehensive bill, which would make possible research in the basic sciences as well as support research in the medical schools of this country.

I am advocating a comprehensive bill as a substitute for the Wagner-Murray-Dingell bill, taking care of these two important measures but also supplying grants in aid for the care of the underprivileged and the low income group through prepayment insurance programs, which need not require any kind of bureau or federal supervision but through the normal local challenge of the commissioners' court and medical profession. The Wagner-Murray-Dingell bill does not reach the people who cannot afford to pay, but reaches the people who are made to pay through taxation and in doing so a bureaucracy is created. At least 20 per cent of the resources collected would be needed to sustain the administrative phases and the political, and with this development of a larger number of federal employees the political signification would not be lost upon those remaining in office.

BLUE CROSS PLAN GROWS

Records continue to be broken in the number of Americans joining voluntary non-profit plans for prepaying hospital bills. A total of 2,282,482 new members joined during the first six months' period of 1945 and thus exceeded by more than 500,000 the previous record membership growth established during the corresponding period of 1944.

This announcement was made by Dr. C. Rufus Rorem, director of the American Hospital Association's hospital service plan commission, who stated that the total Blue Cross membership in forty-three states, the District of Columbia, seven Canadian provinces, and Puerto Rico now numbers 18,800,000 Americans.

Six states have passed the million membership mark. New York State leads with over 3,000,000 Blue Cross members; Ohio, 2,160,000; Pennsylvania, 1,933,000; Michigan, 1,303,000; Illinois, 1,220,000; and Massachusetts, 1,202,000.

A state-wide Blue Cross plan has just been approved for New Mexico which leaves only Arkansas, Mississippi, South Carolina, Idaho, and Wyoming without a community and hospital-sponsored plan for removing the financial worry of hospitalized illness or injury.

The Treatment of Uterine Fibroids

STANLEY A. HILL, M.D.
Corinth, Miss.

IN ORDER TO be abreast of the times I have chosen to present, first, the treatment of fibroids with atomic energy. In contrast to the popular belief that atomic energy was first utilized with the two famous bombs dropped on Japan, roentgenologists have been studying, developing, and improving the use of atomic energy in the therapy of new growths for half a century. Both the use of x-ray and radium embrace this phenomenon.

Radium

In small bleeding submucous fibroids radium therapy works well. Since sterilization may result, cases where no more children are desired or those cases at the menopause should be selected. Tumors up to twelve centimeters in diameter are considered of suitable size. Only in patients constitutionally unfit for surgery are larger fibroids to be submitted for radiation. X-ray therapy is used but radium is the agent of choice, 2400 milligram hours being given as an average dosage. Bleeding at the first two menstrual periods following treatment is probable and sometimes excessive in cases that are eventually cured.

Surgery

In the larger tumors involving the entire uterine body, subtotal hysterectomy is required. The pathological anatomy may indicate other procedures. For instance, if the tumor is located low on the body and extends onto the cervix, or is growing from the cervical canal, total hysterectomy is indicated. When the tumor is attached to the cervical canal, grows to a large size extending into the vagina, the seriousness of the case is greatly enhanced. Since these bleed profusely transfusion may be required.

Myomectomy Favors Fertility

A white patient, age 35, married nine years, sought the correction of sterility. Two fibroids, the size of golf balls, were found attached to the right anterior side of the uterine fundus. These were removed June 30, 1944, followed by prompt recovery. She bore a live baby August 16, 1945. Therefore, whenever feasible, the writer wishes to advise myomectomy.

Complications May Prove More Important Than The Myoma

Another white patient, age 35, underwent laparotomy May 24, 1944, with the preoperative diagnosis of fibromyomata uteri. Exploration revealed the following complications in addition to leiomyoma of the uterus: 1) severe bilateral salpingitis, 2) endometriosis (endometrial cysts of right ovary, 3) acute periappendicitis, 4) extensive pelvic adhesions.

Myomectomy, bilateral salpingectomy, right ovariectomy and appendectomy were executed. A febrile postoperative course resulted but, even so, the patient was able to leave the hospital on the eleventh postoperative day. The draggy convalescent period was accepted as the expected sequence of events. Enthusiasm as to good results faded when this patient came down with acute intestinal obstruction July 12, 1945, (about 13½ months after the first laparotomy). The right half of the colon was involved, the blood supply having been embarrassed by the adhesions. This was thought to have been a complication of the endometriosis more than the other conditions. This may be a debatable point. Nevertheless, she had Providence on her side and made a prompt recovery even though the outcome could not be predicted for three days.

Pathology

Myomas are tumors composed of muscle. Leiomyomas are made up of smooth muscle. Rhabdomyoma is the term referring to the more rare striated muscle tumor.

To gross examination there may be the several anatomical types of myomas found in one mass. The subserous, intramural, and submucous types according to the location in the wall may exist in one uterus. Essentially myomas are composed of smooth muscle tissue arranged in whorls that glisten with a tendon-like lustre. This is supported by a varying amount of fibrous tissue framework. On cut section the glistening tumor bulges from its encapsulated walls. There is a poverty

---

*Read before the quarterly meeting of the Northeast Mississippi Thirteen Counties Society, September 11, Amory, Miss.

of blood vessels, usually a main nutrient artery to each tumor that soon, as the tumor enlarges, cannot supply the demand. Hence the reason for degeneration arises. It is now accepted that myomas originate in the musculature of the uterine wall. The former belief that they arose from the smooth muscle of the blood vessel walls has been discarded. The fact that myomas soften during pregnancy and regain their hardness afterwards points to their origin from uterine musculature.

Adenomyomata is the term applied to diffuse myomas occurring at the horns of the uterus and in the Fallopian tube itself. These contain epithelium lined gland-like cavities. Although argument has been advanced for these being misplaced rudiments derived from the mesonephron (wolffian body) it is now accepted that the glandular elements can be traced directly to the uterine glands.

One of the intriguing phenomena is the separation of a relatively large tumor nodule from the uterus with secondary implantation into the parietal peritoneum of the posterior abdominal wall. The pedicle becomes twisted and the blood supply gradually increases enough to sustain the tumor. When the tumor becomes entirely separated from the uterus it is known as a parasitic myoma.

Degeneration

The several kinds of degeneration described in the older textbooks result from the inadequate blood supply. There is one main nutrient artery, the others being gradually crowded out and this one in turn overburdened. This gives rise to the degenerative changes as the vicious cycle progresses. The types of degeneration will not be described more than to comment on the fact that the submucous fibroids are especially productive of serious symptoms. The uterus tends to expel them into the vagina exposing the surface to infection. Circulatory changes cause the mass to soften and disintegrate leading to wasting in the woman. The frequent hemorrhages produce extreme anemia. The disturbance in the circulation leads to cardiac hypertrophy, and a risk of cardiac failure and collapse. Other writers call this the "myoma heart." I have never thought that this should be considered a separate clinical entity but simply a reflection of the anemia and upset physiology caused by the myoma. Having had the painful experience of losing a profoundly anemic patient on the table, I am a firm advocate of blood transfusion. However, since there is a tendency to overwork transfusions, may I relate the statement of a staff member of the Mayo Clinic, "If a woman can walk, she can be operated upon." This seems to be a rather good practical guide. If the patient is ambulatory, she can weather a good deal of surgical shock; if she is bedridden building up procedures are often required.

Before leaving the subject of degeneration malignant changes should be mentioned. Adenocarcinoma of the endometrium, at times, is associated with myoma. This is considered to be encouraged by the myoma acting as an irritant. Therefore it is good practice to heed the teaching of Lahey and execute a diagnostic curettage before doing the laparotomy. This will allow one to do a total hysterectomy if carcinoma is reported.

Sarcomatous degeneration of fibroids occurs most often about the age of fifty in cases of long standing that have passed the menopause. Since there is no clinical method of making the diagnosis of myosarcoma we can only suspect it in a large fibroid after menopause that takes on sudden increase in size.

Diagnosis

The diagnosis is easy in the large uncomplicated types but may become most difficult in the smaller ones either with or without complications. The large firm asymmetrical nodular mass that moves when the body of the uterus is moved is typical and usually the menstrual story may be disregarded. The small intramural or submucous tumor that is not large enough to be outlined by bimanual palpation may not be conclusively proved until the uterus has been removed and sectioned. The next difficulty may be a fibroid that could be outlined preoperatively but at operation found to be just part of the pathology. If, as in the case reported above, severe pelvic inflammatory disease with perhaps endometriosis thrown in for good helping is found, the moderate sized myoma may be the most insignificant part of the diagnosis. The patient's outlook will have to be evaluated on the additional pathology found almost to the disregard of the myoma. In these complicated cases a better preoperative opinion may be gained by doing a bimanual pelvic examination under general anesthesia.

Although menorrhagia and metrorrhagia coupled with pressure symptoms may strongly suggest a myoma, the diagnosis is really established by the objective palpation of the tumor mass. This brings up another practical point, namely, pregnancy. One may want to know if pregnancy coexists with the tumor. Or, if the case of a fibroid uterus that is symmetrically enlarged the problem of tumor versus pregnancy arises. In this situation the Ascheim-Zondek test is the best referee. Then one has a reliable test from which to advise his patient. Although few may be prepared to make the test, one ounce of voided urine to which a grain of boric acid has been added as a preservative can be readily packed and mailed to a laboratory. The result is reported after forty-eight hours.

Ovarian cysts may at times present a problem in the differential diagnosis. The fluid consistency, fluid wave, and lack of firm attachment to the uterus will usually indicate the true condition.

Surgical Technic

Adequate exposure and good light are fundamental to good surgery. The practice of laying off the proposed incision by scratching the skin with the back of the scalpel point and making a few cross hatches is quite worthwhile. The cross hatches have guides for matching the skin margin at closure. If there are no marks left, the towel clamps and retractors may have so distorted the skin as to allow one to miss the proper approximation from one to two or more inches.

Lahey has recently published an excellent discussion of technique in the Surgical Clinics of North America. The skin incision is begun to the left of the umbilicus and joins the median suprapubic portion of the incision at a 135-degree angle. This leaves a good strip of the rectus sheath to the left of the umbilicus that will insure a firm closure. The pyramidalis is exposed early and forms a natural anatomical pointer to the midline. Then the patient is placed in Trendelenburg position and the intestines walled off with moist packs. I have been unable to employ the omentum as described in the above article for walling off the intestines but believe it worth while when anatomically possible. The round ligaments are ligated and divided. Then the infundibulopelvic ligament is next ligated and divided at the side of the uterus or lateral to the adnexa. This depends on whether or not one elects to remove the adnexa or not. Then the peritoneum reflected from the bladder is divided in a tranverse plane across the cervix and the bladder wiped down from the anterior wall of the cervix and vagina with gauze. Careful attention to this point will get the bladder out of the way of the suspension procedure after the excision of the uterus. The wiping maneuver will usually expose the uterine arteries. At this point one needs to know the location of the ureters which form the structure most easily damaged by hysterectomy. Although not as easily demonstrated as the master surgeons indicate, it is good practice to hunt for them. It is not necessary to dissect out the ureters in subtotal hysterectomy but may become so in total removal. After one has satisfied himself that he will not damage either ureter the uterine vessels are clamped, making the nose of the clamps point into the cervix, and two ligatures affixed.

Then the uterus is excised by amputating across the cervix. This is best done by making the knife strokes at a 45-degree angle to the axis of the cervix thus removing much of the cervical canal. Then hemostasis is secured by placing about three mattress sutures across the stump. I have been unsuccessful in securing firm hematosis by interposing the ends of the two round ligaments between the lips of the cervical stump and therefore attach them after the mattress sutures are secured. The infundibulopelvic ligaments are tied to the cervical stump and all raw surfaces are peritonized by approximating the bladder reflection of peritoneum to that from the rectum with plain catgut. Frequently one stitch will suffice. The toilet of the pelvic cavity is attended to, the table flattened, and the abdominal wall closed in layers.

In total hysterectomy the bladder is wiped farther downward exposing the upper part of the vagina which is opened in the anterior fornix. Then the cervix can be grasped in tenacula and held in an upward stretch while a circular incision divides it from the vagina allowing the uterus to be lifted out. Although more suturing is required, the closure of the vaginal stump and its suspension is similar to that described for the cervix.

SUMMARY

The treatment of uterine fibroids is largely a surgical procedure. Submucous fibroids in cases where sterilization makes no difference and in the absence of complicating inflammation may be suitable to radium therapy.

Myomectomy is urged if at all possible during the childbearing age.

Hysterectomy for the larger tumors yields good results. However, in the writer's experience complications, that is, disease of the Fallopian tubes and ovaries, are frequently encountered which influence the prognosis more than the myoma itself.

REFERENCES

1. William P. Graves: Gynecology, Fourth Edition, W. B. Saunders Company.
2. Lippincott's Quick Reference Book, Medicine and Surgery, 1934.
3. W. G. McCallum: A Textbook of Pathology, Fourth Edition, W. B. Saunders Company, 1928.
F. H. Lahey: The Technic of Total and Subtotal Hysterectomy. Surgical Clinics North America. June 1945, pages 473-489.

Female Urethritis

JOHN A. MURFEE, M.D.
Amory, Miss.

The female urethra itself occupies only a very small portion of the human anatomy. ' Its length is only one to one and three-fourths inches. Its walls are very elastic and the caliber should easily accommodate a 3 F instrument in the adult. At times the thickness of the wall is as much as ten to twelve millimeters. Towards its proximal end are many small glands around its circumference. The presence of the latter until recently has been debated by leading urologists. Their existence now is a well established entity, some even becoming hyperthrophied to such an extent that transurethral resection has been resorted to for relief of the obstruction—hence the term female prostate.

The symptoms produced by diseases of the female urethra are legion and have simulated all conditions known to arise from within two feet of the pelvis. The patients suffering from such troubles have been tossed about freely in an effort to bring relief to both the patient and the doctor for listening to the various and sundry complaints. The gynecologist has felt the condition to be out of his field; the urologist has felt the condition beneath the dignity of his knowledge and skill; the surgeon has removed appendices, ovaries, uteri, fallopian tubes, and the orthopedist has even gone so far as to do sacro-iliac and lumbosacral fusions of the spine; the internist has put in his bit to find the cause of the trouble; the roentgenologist has used his small elastic tube; the psychiatrist has assured these patients that a rest and change of environment is all that is needed. Lastly, that patient in her wild effort has turned to the "cure all" chiropractor who has "adjusted every vertebra in her spine" at the rate of $2.00 per treatment, but the patient still complains and the urine remains crystal clear and the symptoms are varied as the colors of the rainbow. Frequency and dysuria are probably the two most common complaints, but chronic granular urethritis has been known to mimic appendicitis, salpingitis, renal and ureteral stones, diseases of the spine, sciatica, gallbladder disease, and various nervous manifestations are common.

The exact etiology of the disease known as chronic urethritis of the female is varied, but trauma and infection cover most of the cases. The glandular structure of the posterior urethra make it possible for infection to remain over long periods of time and have been the foci of infection in diseases such as furunculosis, neuritis and arthritis, critis, etc. After the infection has been present for some time, the surface becomes granular and because of the concomitant scar tissue formation the calibre of the urethra is reduced, sometimes to the point of stricture formation. This, of course, is capable of producing damage of the kidneys, ureter, and bladder as would an ordinary case of prostatitis from the granulations. Sometimes, small polyps and papillas form from the granulations. The intimate lymphatic contact of the cervix with the bladder and urethra make it highly desirable to eradicate infection of the former before instituting therapy for the latter. I speak particularly of chronic cervicitis. It goes without saying that infection in Skene's glands must be eradicated also, and infection

---

*Read before the quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society, September, 1945, Amory, Miss.

higher in the urinary tract, is of course, to be looked for and treated, but the great majority of such cases do not present such an entity.

The diagnosis of chronic urethritis does certainly not require the equipment nor the knowledge and skill of a urologist. The most useful instrument is the acorn tipped bougie á boule. I usually employ this in various sizes from 6 F to 14 F or 16 F in all cases of dysuria and frequency and many other cases where the etiology of the malady is not clear. The instrument is well lubricated and introduced carefully into the urethral meatus and thus on into the bladder. Definite points of tenderness and tightness along the course of the urethra are thus detected and there is usually a definite "hang" to the instrument as it is withdrawn. Sounds, preferably but not necessarily straight ones, are then used to determine as nearly as possible the calibre of the urethra. Normally the adult female urethra should accomodate a 30 F sound with ease. This is all that is necessary the vast majority of times. Of course, if one possesses a urethroscope of the water dilating variety, he may inspect the entire circumference of the urethra and also detect papillae and polyps which have formed along its course, more often close to the bladder neck. These can be suspected by the bougie á boule method and the symptoms, but the positive diagnosis can only be made by direct examination. It is to be strongly emphasized that many of the most severe cases have urine specimens that are crystal clear and contain no microscopic findings.

The treatment for chronic urethritis has been as varied as the symptoms. The bladder and urethra have been irrigated with solutions of conceivable colors, strengths, and chemicals. Time-honored drugs such as potassium permanganate, picrates, argyrol, green soap and boric acid have been used with little or no relief. Bromides, citrates, hyoscyamus, and the long famous buchu and sandalwood have been given orally, still with little or no avail. Hot sitz baths have been resorted to with little help to either patient or doctor. The therapy of choice is gradual dilatation with steel sounds or woven bougies followed by increasing strengths of silver nitrate beginning with a 1 to 1,000 and increasing gradually to 1 to 100. The urethra is dilated only one size at a sitting until a 28 or 30 F is reached. Treatments should take place about once every week. I prefer to start each treatment with a size smaller than the largest used at the previous time and go up two sizes. I am sure there isn't a doctor in this section who does not have in his office this minimum of equipment, but judging from the many women presenting the disease in question I am sure the sounds have been confined in their application to the strictured male urethra. Their application to the female is certainly worth while and the patients should be instructed for a check-up at times that the physician might designate, and should continue this over a long period of time due to the likelihood of recurrence from the ever-present scar tissue produced by the chronic inflammation and infection of the urethra.

If the urethra presents large granulations or polypi, it is usually necessary to destroy these by fulguration under direct vision. The relief to the patient is usually dramatic and she will tell you she feels better when she gets off the table.

It is beyond the scope of this paper to discuss the diagnosis and treatment of such conditions as urethral diverticulum, vesical calculus, elusive ulcers, etc., but they must be kept in mind although they do occur much less frequently than the urethritis.

> Beauty lurks beneath the surface of all people. . . . . Find the beauty that is inside of you and remain true to it, in dress, in action and even in thought. That, I believe, is the secret of all real beauty.
>
> —Katherine Cornell

Recent Advances in the Medical and Surgical Management of Gallbladder Disease

O. B. CROCKER, M.D.
Bruce, Miss.

THE MANAGEMENT of gallbladder disease once the diagnosis is established is not always obvious or clear cut. One is confronted with many problems. Is it a medical or surgical problem? If medical, what plan of therapy should be instituted? If surgical, is it an emergency or may one prepare the patient and operate at the most opportune time? These are some of the questions that always occur. I shall try very briefly to give you the concensus of opinion in the best clinics of the country regarding these problems at the present time.

In any discussion of the medical treatment of gallbladder disease one must consider that there are no procedures which can be uniformly applied to every patient and any effort which requires adherence to routine procedures will meet with failure because the individual variations in patients are not considered.

For convenience we shall divide the gallbladder diseases into five main varieties. These are: the so-called group of biliary dyskinesias, chronic non-calculous cholecystitis, calculous cholecystitis without colic, calculous cholecystitis with colic, and acute cholecystitis with empyema.

Biliary dyskinesia is a rather indefinite diagnosis. It is a diagnosis which is based upon the presence of vague gallbladder symptoms, vague bowel symptoms, no history of colic, and the finding of poorly filling or poorly emptying gallbladders on roentgenologic examination. On physiologic grounds it seems as reasonable for an individual to have spasm of sphincter of Oddi as it does for an individual to have spasm of the pylorus or to have bowel spasm. From the standpoint of management of these individuals, they should respond ideally to the use of anti-spasmodics, a high fat, bland diet, and the administration of bile salts.

Chronic non-calculous cholecystitis, it is generally believed, is primarily a medical problem. In an occasional case the symptoms may be relieved by cholecystectomy but in general these patients do not obtain good results from operation. This group includes particularly those patients who have a vague type of dyspepsia and abdominal discomfort but who have not had biliary colic and do not have positive cholecystographic evidence of disease. This group of patients should be treated conservatively. They should have a bland diet, with uncooked fats allowed up to the point of the individual's tolerance, the use of anti-spasmodics and the use of bile salts.

The third group of patients are those who have cholecystitis with calculi but without colic. These usually are individuals in whom the stones may be discovered during the course of some other examination or who have a large single solitary calculus within the gallbladder which remains quiescent and produces little in the way of symptoms. There is a wide diversity of opinion about the proper procedure in this type of case. The surgeon points to the carcinomas of the gallbladder that are practically never found except with stones and the internist points to the fact that post-mortem statistics show that 25 to 30 per cent of all persons more than sixty years of age have chronic cholecystitis with stones. From the standpoint of management of these patients as medical problems, there are about three considerations which must be borne in mind: the older the patient gets the greater is the mortality should surgery become necessary. Many of these individuals, however, have no symptoms and the gallbladder lesions are discovered as incidental findings on post-mortem examinations when death is due to other causes.

The second consideration is that not a small proportion of these individuals will develop complications such as fistula between the gallbladder and adjacent viscera as the result of pressure erosion by the large stone. The last consideration is that there is an increasing weight of evidence that as mentioned before that perhaps carcinoma of the gallbladder occurs more frequently in stone-bearing gall-

---

*Read before the quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society, September, 1945, Amory, Miss.

bladder than in others. From the standpoint of medical management, if an individual has no symptoms he would not be very amenable to suggestions of a cholecystectomy. Conservative management would entail periodic supervision together with a management which would tend to keep the individual out of trouble. Such measures would consist of efforts to prevent spasm through the constant use of an anti-spasmodic; efforts to regulate bowel habits through the use of a bland diet so as to prevent any reflex spasm of either bowel or common duct sphincter; and lastly, careful adjustment of the uncooked fat content of the diet so as to prevent unnecessary gallbladder stimulation. The next group of individuals who have gallstones and who have frequent or repeated attacks of colic, it is generally agreed, should be subjected to cholecystectomy. They may be temporized for vague and indefinite periods of time by medical procedure but by and large ultimately surgical removal of the gallbladder will be the only means of permanently achieving relief.

The principles involved in the medical treatment of gallbladder disease as practiced most consistently today can be briefly summed up as follows:

1. Prevention of spasm — this is achieved through the use of anti-spasmodics in which the chief reliance should be placed on atropine or atropine derivatives such as belladonna. Some of the synthetic anti-spasmodics such as pavatrine or transentine have an indeterminate value. Spasm can further be prevented by the control of diet. Usually associated with gallbladder disease there are manifestations of bowel irritability. Cathartics should be avoided. A bland diet with uncooked fat should be given.

2. Facilitation of gallbladder emptying is the second principle of management to be achieved. This is accomplished both by the prevention of spasm and the supplemental addition of uncooked fat. If the fats are cooked, the fat is oxidized from neutral fat to fatty acids, in which form it acts as a gastric irritant.

3. The third factor consists of efforts to increase the flow of hepatic bile through the use of bile salts which acts directly on the liver cells.

These principles of management, you will note, differ from the longstanding, widely used low fat, low cholesterol diet associated with the administration of magnesium sulfate or other saline cathartics. The newer régime as outlined certainly is more physiologic in principle.

The last type of gallbladder disease, acute cholecystitis with empyema with or without stones, comprises about 20 per cent of all diseases of the biliary tract encountered in medical and surgical practice. Its management is controversial. The most widely argued point is whether operation should be delayed. It is pretty generally agreed now that these acute cases if possible, should be operated on in the first twenty-four to forty-eight hours following the acute attack. If the patient is elderly or for any other reason a very poor risk, the chances of survival may be better if the acute phase is treated conservatively and the operation done at some future time. If the operation is performed within forty-eight hours of the attack, it is usually not difficult or hazardous. The tissues are edematous but have not yet become indurated and friable. The risk of peritonitis is negligible. It is usually possible to carry out classical cholecystectomy without difficulty, the edema in the tissue controls the oozing and results in an excellent line of cleavage for the dissection. It is estimated that if operation is delayed perforation will occur in about fifteen per cent of the patients. The dangers of such a complication are well known. If on opening the abdomen the condition is such that a removal can't be done, cholecystectomy may be done with relatively little risk and removal at a later date if necessary.

Every normal man must be tempted, at times, to spit on his hands, hoist the black flag, and begin slitting throats.

—MENCKEN

State Committee Favors Four-Year Medical School

Report of Committee on Medical Education, Mississippi State Medical Association

The Committee on Medical Education for the Mississippi State Medical Association realizes the need for more and better hospitals and more and better physicians in the state. Briefly, our recommendations are as follows:

First: That the private hospitals which now receive state aid for their charity departments should continue to receive the same amount of aid, or more.

Second: That it would be wise to have appointed a non-political board of trustees to manage the hospitals of the state, which are owned by the state or state aided. This committee could receive very material assistance from the Federal Government in promoting better hospitalization for Mississippi.

Third: A hospital without adequate medical staff is unable to give the best medical care to patients admitted, and the number admitted is limited.

Fourth: The Committee believes that in order to have an adequate supply of well trained physicians provision should be made in the state to train these physicians.

Fifth: It is the opinion of this Committee that it would be expedient for basic sciences in the medical school to continue to be taught in the University, as they have been in the past, and we feel that facilities of the University should be enlarged so that fifty freshmen a year can be admitted to the school and possibly after one and a half years these students should be transferred to the clinical department of the medical school; the clinical department of the school should be established somewhere in the state where the most adequate clinical facilities may be found, which will necessarily be in a larger city.

Sixth: That it will be necessary to have about a three-hundred-bed central teaching hospital connected with the medical school, the management of which would most probably best be under the Board of Trustees of the Institutions of Higher Learning.

We submit the following evidence to substantiate these opinions.

The Committee on Medical Education of the Mississippi State Medical Association has ample proof of the need for more medical care for the people of the state, and in order to have more medical care, the services of more physicians year by year will be required. More hospital facilities are needed, but what will it profit us greatly to increase hospital facilities and not have physicians to work in those hospitals?

Only last month our part-time health officer in Carrol County died. A physician was selected to fill out his unexpired term, and the youngest of the four physicians left in Carrol County was appointed. He was 65 years old October 7, 1945. This situation obtains in a number of our counties. We have entire counties with from one to three or four physicians with an average age of sixty-five years or over for the physicians. They will all be dead, or at least inactive, within a few years, and Mississippi must plan to fill the gaps or the people will suffer even more than they suffer now.

The recent survey showing the number of physicians in Mississippi by counties, race, and average age is self-explanatory, and should impress any thinking Mississippian with the gravity of the situation.

The following letters are but samples of many letters received.

July 18, 1945

"For some time I have watched with much interest the fight being waged for a four-year medical school in Mississippi. I have had a strong personal interest in the question because I am wondering when and from what source are younger shoulders coming to lift from my own overburdened shoulders a load that has at many times been almost more than I could carry. At the beginning of World War II, there were four physicians in Franklin County. Two left early in the war and my colleague, Doctor Costley, and I have had to look after the medical needs not only of Franklin County, but also of that territory of Amite and Lincoln counties which immediately touches Franklin. And, we haven't been so situated that we could strike for shorter hours and bigger pay! I could shoulder the load with more confidence and courage if I could see any relief coming, but frankly I can't.

"Our government pursued a very short sighted policy in the beginning when it did not provide facilities for medical students for all young men who were ready for medical school. I personally know of two young men in this county who had completed pre-medical work and wanted to pursue their studies. However, the draft boards said to them that they must be accepted by an 'A' grade medical school within a prescribed time limit in order to be deferred. Every 'A' grade school to which they applied for admission answered that its quota was filled for one years, so these two young men enlisted and today are serving in foreign theaters of operation. Temporarily they were lost to the medical profession which so much needed them. I am told that there were many similar cases.

"Mississippi has always prided itself on its fine medical program, a program for public health that has won national recognition. The weakest point in that program is the lack of facilities for complete medical education in our own state. Mississippi is in fine financial circumstances. Now, how long will we quibble about this important question while our boys go elsewhere to study and too often to locate?

J. C. McGhee, M. D."

"September 19, 1945

"I am writing you in the interest of humanity. First, I want to give you a picture of the situation in the medical profession at Picayune.

"Two or three years ago Doctor Goss, who was twelve miles northeast of Picayune, moved to Lumberton. Doctor Horne, eight miles north of Picayune and who is about seventy-five years old, is now in Touro Infirmary. Doctor Plunkett is around seventy years old and does make calls either day or night. Doctor Kellis is retiring to his farm north of Meridian. That only leaves Doctor Northrop to do the surgery at the hospital, and Doctor Woodward and myself to do the practice for about 12,000 people, six or seven thousand in Picayune and the balance in a radius of about fifteen miles of Picayune.

"It will be impossible for Doctor Woodward, who is about sixty-five years old and myself, who will be seventy-one next month, to keep up this work. We have raised a young doctor in this community, who is Dr. G. B. Stewart and who is now finishing his work at Touro Infirmary in New Orleans. He has always intended to locate here, and we need him badly.

"Will you please see Colonel Long and try to aid us in getting Doctor Steward here. Thanking you for anything you can do for us in this matter, in keeping Doctor Stewart from having to go into the army.

N. W. Fountain, M.D."

These two letters happen to be from Pearl River and Franklin counties. There are a number of counties no better off than these two counties and some worse off. For instance, Issaquena County has only one physician in the county, Dr. W. H. Scudder of Mayersville, who was eighty-four years of age on September 18, 1945.

Arkansas, Louisiana, and Tennessee have one of three standard four-year medical schools. We quote state population, number of physicians, and ratio of physicians per population:

Arkansas

Population	Physicians	Ratio
1,949,387	1806	1 physician per 1079.3 population.

Louisiana

Population	Physicians	Ratio
2,363,880	2601	1 physician per 908 population

Tennessee

Population	Physicians	Ratio
2,915,841	2961	1 physician per 984.7 population

While Mississippi without a four-year medical school has one physician per 2,200 population.

Alabama officially opened a four-year medical school October 1 at Birmingham.

Call the doctor — Familiar words, and often signifying a personal or family crisis, requiring the best in medical or surgical skill. More than a million times a year someone in Mississippi calls the doctor.

What are the medical needs?

Illnesses — Over a million people were sick some time during last year in our state.* Of these thirty-five thousand were chronically ill continuing through the whole year. Others had more acute shorter illnesses or were sick part of the time from such conditions as malaria 25,094;** pellagra 2752, syphilis 16,652; tuberculosis 1600; accidental injury 50,000; confinement at child birth and abortion 47,905; whooping cough 12,716; measles 9,172; pneumonia 16,288; influenza 82,770; while colds and minor ailments of stomach, kidneys, or intestines certainly ran to the hundreds or three hundred thousand persons.

Defects — Today and on any particular day there are 50,000 people in our state who are totally or partly disabled by maiming or crippling defects — 4200 blind,*** 10,000 with serious eye defects; 765 totally deaf and dumb; there are 6,000 crippled children,**** and 6,000 seriously crippled adults, and 35,000 partly crippled children and adults.

The physically unfit

Selective Service Rejections — Another type of measurement of physical disability results from the medical examination of large numbers of young men and women in connection with the military service, and rejection is not based simply on the presence of a disability but upon its severity with respect to ability to engage in combat duty. From May, 1942, until February, 1945, local examining boards and induction centers were compelled to reject for health reasons the following numbers of our young men: nervous and mental diseases 23,500; genitourinary and venereal diseases 13,700; musculo-skeletal deformities 13,200; vision defects 7,350; hernias 7,250: heart inadequacies 6,150; lung conditions (nearly all tuberculosis) 3,700; hearing limitations 1,900; and miscellaneous 7,100. More than 80,000 men from this state, who could have filled more than five army divisions, were physicially unfit.

Borderline Deficiencies

People in Poor Health — In civilian ranks, in addition to the dead, the disabled and the physically unfit, there is still another large and important group; in fact the one in which most of us are likely to be. A huge group of people who are alive and apparently undamaged but who are not in abundantly good health, are below par in strength and endurance. The happiness of complete well-being is denied them. Their morning begins with a lack of zest, and afternoon finds them over-fatigued. The number is countless but most of the people of the state are in this group occasionally and many are in it all the time. It is this group that we mean when we say that 750,000 people have defective nutrition; 1,200,000 have poor teeth, 20,000 have poor hearing; 50,000 have poor vision and hundreds of thousands who are "soft" for lack of exercise.

Economic Implications — All this wastage of human beings by death, disability, and deficiency is reflected in medical bills, hospital bills, lost incomes, poverty, government relief, orphaned families and broken homes.

The farmer loses his crop, the planter is short of labor, the factory struggles with absenteeism, and the armed forces require more and more young, the aged, and the essential worker. There are losses of farm products, factory output is lowered, a war may be prolonged; in short, life is made harder for all. Accurate computation of the economic losses is impossible, but their magnitude staggers the imagination. To estimate the annual health and sickness bill (together with lost income therefrom) drains from the people of Mississippi, $50,000,000 to $75,000,000 would be very conservative. This figure roughly equals the total tax revenue of the State government.

Conditions have changed for medical practice since 1900.

Financial Considerations — Since 1900 the amount of time required to secure a medical education has been lengthened from approximately three years to approximately nine years; the cost of medical training has risen in proportion.

Medical Education Requirements

In 1900 three or four six-month terms at a college, no pre-medical or two to four years apprentice with private physician were required. The cost was from 0 to $2,000.00.

1945

Four years in a medical school (9-month terms)	$5,000
Four years pre-med	4,000
One to two years internship	1,000
Total	$10,000

Age of Physician at Graduation

In 1900 a boy entered at 18 to 20 years of age, graduated at 20 to 24 years of age, and married at 25 to 30 years of age.

---

* Estimate basis on National Health Survey, 1930.

** From State Board of Health Morbidity Reports, 1943.

*** From State Blind Commission, 1945.

**** From Vocation Rehabilitation and Crippled Children Service Report, 1944.

1945

Enters from 18 to 20 years of age.
Marries from 32 to 35 years of age.

Financial Status of Medical Graduate

In 1900 office rent was $10.00 to $50.00 (month), furniture $25.00 to $50.00.

Medical equipment in 1900 was one horse ($100.00), one pair saddle bags ($15.00), one medical bag $10.00), instruments for diagnosis and treatment ($25.00 to $100.00).

1945

Office Space—Rent $25.00 to $50.00 (month). Furniture $100.00 to $250.00. Telephone, heat, lights, water, $15.00 to $25.00. Maid service $25:00 to $50:-00: Secretary $75.00 to $150.00 (month).

Medical Equipment—1 automobile $1,000. X-ray $2.-000. Examination table $50.00. Diagnosis instruments and treatment equipment $100.00 to $500.00. Medical bag $25.00. Books, medical dues, $100.00 per year.

In 1900 board and room were $30.00 to $50.00 per month. A medical graduate had little or no debt. Financial income from practice was $100.00 to $200.00 a month. The cost of establishing a home was from $600.00 to $1,000.00 per year.

1945

Personal Maintenance—Board and room $70.00 to $150.00 (month). Operation of automobile $75.00 to $150.00 (month).

Marriage—Cost of establishing a home $1,500.00 to $3,000.00 per year.

In 1945 a new physician finds it necessary to have a financial income of at least $3,000 each year. For this reason it is necessary for him to attempt to find a location which will produce this amount.

Where do the Mississippi doctors come from? Well, of the 1112 now practicing in the state, 846 or nearly 80 per cent were born in this state. During the past 20 years over 3,000 Mississippi boys have finished medicine in more than a dozen medical schools in other states. Less than 40% came back to practice in Mississippi. Many physicians select the location for practice while completing the internship in a hospital and usually locate nearby. Mississippi has no facilities for internship so that we lose contact with the young doctors at this critical period and lose many doctors for this reason.

Lack of opportunity for Mississippi boys to learn medicine — Except for about 25 boys each year who enter the University of Mississippi, two-year medical school, all others must seek entrance in other states; and all must go to other states for the last two years of medicine, for internship, and for the training in such medical specialties as surgery, pediatrics, etc. During the past four years the University of Mississippi has been compelled to reject 102 Mississippi boys as medical students as no accomodations could be provided in Mississippi for them to study medicine.

In the horse and buggy days a physician could keep in his office and carry in his medicine bag most of the essentials for the practice of medicine. Now, scientific progress has given him a wonderful new set of equipment and medical aids; in fact, modern medicine often depends on a number of especially trained people in addition to the doctor. At one time the pill bag was adequate, but now a drug store and pharmacist are needed. At one time many very sick people were cared for at home with the help of sympathetic neighbors. Now, the hospital with trained nurses and other trained people can give the patient better care. The microscope and laboratory to help in diagnosis are essential to good practice. Often x-ray, radium and other very expensive equipment is needed in diagnosis and treatment.

When will there be more doctors in Mississippi? Some have thought that the shortage of doctors would be over as soon as the war ended and our doctors returned. Some factors indicate that this is not true. We needed to look over at the supply from 1909 to 1940 (prewar). We lost 612 doctors out of 2054. so that only 1435 remained. And note, this was in peace time! Another factor is age. In 1909 the doctors of Mississippi averaged about 45 years of age. In 1940 they averaged 55 years of age, and 388 were over 65 years of age. Death and disability are so great in the upper age group, that the actual loss of available medical care is even greater than the total number of doctors left would indicate. As to this shortage of doctors being made up by war veterans returning, there were 218 who left Mississippi and while they have been away, 208 doctors have died so that if they all return we will be fairly up to 1200 total, including the upper age group. In fact, all of them will not return. Some may stay in the army. Some have been killed. Some may enter veterans hospital service, and others may enter other government service.

Mississippi should at once make provisions for four years of medicine and one year, at least, of internship. If medical education could be provided in the state, it would enable Mississippi boys and girls to enter medicine, and adequate internship would enable young physicians to enter practice in this state. It is while engaged in the internship that the young doctor usually looks for a place to settle down, get married, and practice medicine.

Mississippi is in urgent need of more physicians, and the Committee sincerely believes a standard four-year medical school will, in the years to come, assist materially in meeting that need. The Committee believes that Mississippi is amply able to provide a medical school and to improve the hospital system for the state now. A teaching hospital is essential to the operation of the medical school. The building of the medical school and teaching hospital will not be recurring expense. They both will stand for a half century or longer and serve Mississippi's medical needs.

The building of a hospital in carefully selected places on the basis of need over the state and with remodeling additions, and other improvements to existing hospitals over the state, with state and federal aid, is considered desirable and necessary.

Mississippi is rapidly industrializing and is taking high place as on oil state.

The Committee sincerely believes that the state is amply able and will be more able in the years to come to provide adequate maintenance for the medical school and the state hospital system. It is believed that funds and foundations will be interested in helping us as they have done in most other states, but we do not have to count on that in order to get along.

We consider health, education, agriculture, industries, and highway building basic and fundamental in Mississippi's future. There has been a definite lag in medical care and hospitalization. This seems an appropriate time to take up the slack and to continue our splendid efforts in the other fields. We think we should have an A-grade school, or no school.

H. R. Shands, M.D., Chairman Committee Medical Education, State Medical Association.

Felix J. Underwood, M.D., Vice-Chairman Committee Medical Education, State Medical Association.

EDITORIAL COMMENT

Every person interested in the betterment of himself and his state and nation should read the foregoing report by the committee on medical education and study it with a mind open to the truth. Mississippi with its many well-distributed hospitals has the basis for the very best and most practicable medical school in the United States. Common sense and atomic bomb science make decentralization still more urgent. Half the internships should be served in the small hospitals like we have all over the state.

You have heard it said that having a medical school in a state will not increase the number of doctors in that state, but this report shows how untrue is this statement. Medically speaking, we are feeding the cow whose milk and off-spring go to other states.

If all other Southern states can have one to three medical schools, why can not Mississippi have one? Why does Virginia have so much interest in our **not** having a medical school?

Mississippi should educate enough men for her own state and many more fine men who have a professional mind, a medical soul, and a missionary heart, to go out and bless the world with democratic medicine.

The United States is to be the mecca of the world in medical education, and more facilities are needed for taking care of more students.

We should quit putting a grasshoper estimate on ourselves. The Israelites wandered in the wilderness for forty years and all died but two because they refused to believe they could do a big job in the interest of humanity.

It is high time to quit share-cropping in medical education and to secure some first-class operating equipment.

The cream of the practice in medicine in Mississippi goes to the centers with medical schools, and this is the main reason we do not have money at home to pay our doctors. It will not be different until we have our own school and extend medical service out to the people as farm service is being carried out to the corn and cotton field.

The Mississippi Doctor

Published monthly at Booneville, Mississippi

Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1879. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

OFFICIAL ORGAN OF
Mid-South Postgraduate Medical Assembly
Mississippi State Medical Association

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ...... Assistant Editor

David E. Guyton, Blue Mountain College ...... Poet

Mid-South Postgraduate Medical Assembly

OFFICERS:

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark
A. F. Cooper .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

EDITORS:

Fay H. Jones, M.D. E. M. Holder, M.D.
C. R. Crutchfield, M. D. C. M. Speck, M.D.
H. King Wade, M. D. F. M. Acree, M.D.

Mississippi State Medical Association

EDITOR

Lawrence W. Long, M.D.

ASSOCIATE EDITORS

J. G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

DR. CARY'S ARTICLE

You will read with interest and profit the guest editorial from Dr. E. H. Cary of Dallas, Texas, on Blue Cross insurance and on medical economics and medical legislation. This article is so timely and worth while the points he makes may well be emphasized.

Dr. Cary has been the outstanding leader in the United States on sound medical economics. We believe that the medical profession of our country may follow him safely. We trust that we may have more from his pen for our readers, especially on the bill that he will endorse in Congress. From his summary:

"I have always been embarrassed to be on the negative side of any question. I am much happier to be an advocate of something that seems right and progressive than to remain static or in opposition.

"There have been two or three bills introduced recently which have definite merit. The Hill-Burton bill, which would make possible the development of hospitals where needed. Then there is another bill in Congress which provides funds for research. This is a far-reaching bill in support of research in the sciences. Medical schools will be definitely supported to carry forward research.

"I much prefer to advocate a comprehensive bill as a substitute for the Wagner-Murray-Dingell bill. I would include in this bill the better features of these two bills, supporting public health along rational lines and utilize a similar plan of grants-in-aid which is now being used for rehabilitation in the various states.

"The Wagner-Murray-Dingell bill does not reach people who cannot afford to pay, but attempts to care for the people who can and will have to pay through taxation. A proper use of grants-in-aid, for those in need, matched in part by the Commissioners' Court, and approved by a member of the medical profession would simplify the cost of medical care, placing the responsibility where it should be and save the country from political medicine. No one doubts that the Wagner-Murray-Dingell bill would create a bureaucracy difficult to supplant, and an added burden to the taxpayer and finally to the sick."

The Southern Medical Association is again holding its annual session in Cincinnati, November 12-15, inclusive. It met there year before last and the meeting was a good one. The Southern Medical deserves much credit for its part in keeping medical information flowing in liquid form and without rationing for the duration. There is really no greater medical organization in the world than the Southern.

Dr. Edward Vernon Mastin of St. Louis will preside as president, having succeeded to this high office on June 1, following the death of Dr. Edgar G. Ballinger of Atlanta. Twice in succession a vice-president has succeeded to the highest honor in the gift of the Association.

Dr. Mastin was born in Mobile, Alabama, June 13, 1891. He is a graduate of the University of Pennsylvania Medical School. He comes of distinguished medical stock, being a great-great-grandson of Dr. Ephraim McDowell of Kentucky. He completed his fellowship in surgery at the Mayo Clinic after serving in World War I. He holds a commission as colonel in the Medical Reserve Corps, U. S. Army, inactive. He is a very able, versatile man with a commanding and very pleasing personality.

OFFICE SPACE FOR RETURNING PHYSICIANS

Among the most serious of the problems confronting the returning physician, as is already apparent, is the difficulty of securing suitable office space. In large communities, such as cities of over 100,000 population, the problem is apparently far more serious than in the smaller areas. In some larger cities physicians are even remodeling old houses into office space. At a meeting of the board of trustees of the American Medical Association in Chicago, members of the board suggested that civilian physicians who have not been in military service be urged to offer available time and space, at least temporarily, to physicians who return from absences of two or three years in the service. Many a physician whose office is not fully utilized either in the morning or in the afternoon or even in the evening can make available time and space, as well as the use of his own hospital staff. This will enable the returning physician to get in touch with those whom he served previously and to begin rehabilitating himself in the practice of medicine before he has made a permanent choice of a location. The medical profession owes a large measure of gratitude to the 60,000 physicians who have given of themselves so freely and who have sacrificed so much for all of us. The least that can be done for such veterans is to make available to them an opportunity to begin the earning of a livelihood at the earliest possible moment. *Federation Bulletin,* September, 1945.

The North Mississippi Medical Society held its semi-annual meeting on the University campus, October 23, with a specially arranged program by the Mississippi State Board of Health and the Tulane University of Louisiana School of Medicine. Dr. Ira B. Seale of Holly Springs presided as president and Dr. A. H. Little of Oxford, secretary.

Dr. Edward L. King, head of the Department of Obstetrics, Tulane University School of Medicine, was speaker on obstetrics, while Dr. Ralph V. Platou, head of the Department of Pediatrics, Tulane, lectured on pediatrics. Dr. Howard of the State Board of Health was present. Occiput posterior, breech presentations, obstetrical analgesia, and toxemias of pregnancy were among the subjects discussed by Dr. King; and the premature infant, failure to gain, acute exanthemata and rheumatic fever were ably expounded by Dr. Platou. The meeting opened at two P. M., and ended at eleven P. M. At six o'clock at the University cafeteria dining room, a nice steak dinner was well served and enthusiastically enjoyed.

The university students attended the lectures and many visitors from outside the North Mississippi Medical Society.

This intensive course of lectures covered the field about as well as we used to get in an expensive month in New York. These short, intensive, well-planned lectures are the order of the day. A health center in every county which arranges a day and night by able consultants each month would mark a wise advance. Consultants from our own four-year medical school, or from Tulane, Memphis, or Vanderbilt, might come at intervals for a day and all doctors of the locality could bring their difficult cases in for examination and consultation. At the close of the day the cases might be discussed by both the consultant and practitioner, to the benefit of both, while the patient is best served. Such a plan would mean good medical economy for everyone concerned. The time is urgently at hand for this type of service to get underway. In the meantime the State Board of Health, Tulane University and the Commonwealth Foundation are to be congratulated on the fine work they are doing, as demonstrated by the program at Oxford.

It is always nice to visit Oxford and our University. This great democratic institution stands for thorough work.

Some very familiar faces were absent from this society meeting, Dr. P. W. Rowland of

Oxford, who was the first to use oxygen postnasally and who did such a fine work in building a fine medical library, a past-president of the Mississippi State Medical Association and the Mid-South Postgraduate Medical Assembly, and Dr. R. M. Adams of Ripley who was also a past-president of the Mid-South and one of Mississippi's most versatile and most able practitioners, were greatly missed. A number of the old standbys in this society were present, Dr. B. S. Guyton, one of the able and choice spirits of Mississippi medicine, Dr. John Culley, an outstanding surgeon in the mid-South, and Dr. A. H. Little, a leader in internal medicine, Dr. Phillips, one of the level headed practitioners of the county, Dr. C. M. Murry of Ripley, a familiar and faithful figure in this society as well as the state.

We offer our congratulations to the North Mississippi Medical Society for so excellent a program and day of fellowship.

HOSPITAL-MINDED

The general public is rapidly becoming more hospital minded. In one year the hospital population in the United States increased three million, enough for one new 732-bed hospital every day in the year. The people are realizing that as a rule the really sick patient can be treated better and more economically in the hospital. Mississippi has the lowest number of beds per person in the union, but it makes up in having a fine distribution. Nevada seems to have the greatest number of beds per person of any state, but not well distributed. It seems significant that this state has the highest death rate from appendicitis of any state in the union. The per capita distribution of funds for the indigent sick is the biggest step forward yet made for the small town and rural communities in taking care of the sick. Without this it would be very hard for some of the smaller hospitals to survive. The fine distribution of hospitals in Mississippi will soon serve greatly to hold the population in the small town and rural communities. Eighty-five per cent of the people continue to get sick and die of the ordinary commonly known diseases, most of which can be treated in the small hospital. After all, a hospital system should follow very largely the gradation setup of a system of schools — grammar school, high school, junior college, college and university. It is poor economy for children to travel too far back and forth to school. It is better economy for a mail carrier to carry the daily mail to a thousand people than for a thousand people to journey daily to the county post office to secure it. Medical service must be carried to all the people and largely through a graduated and an affiliated system of hospitals. And as teachers are the most important part of the school, so the doctors behind the hospital, behind the treatment of the sick patient, are most important.

CANCER

Cancer takes the life of one person out of six in America. Thirty to fifty per cent of these lives could be saved just with the facts we now have in hand. Cancer is not inherited as far as medical research has thus far determined. The public must be educated to go to the doctor and the doctor must be prepared with office equipment and trained nurse to make every examination. A central hospital in the state affiliated with the small ones in which the nurses in training and the interns should spend at least six months of their time could help to cut down this terrible human toll of life. Seventeen million people who are now living in the United States will die of cancer. *For every practitioner a trained nurse* — preferably a nurse who has had training in a small hospital and some time in the practitioner's office—would change this picture greatly.

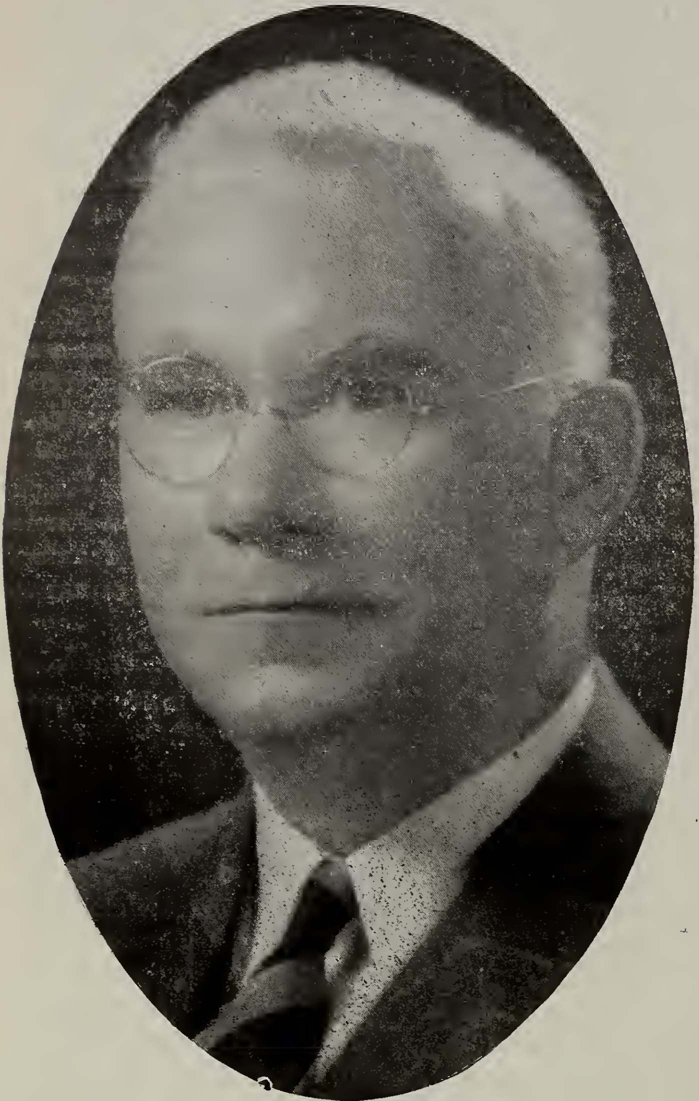
As an aid in making examinations and as an educator of the public, the nurse has unlimited opportunities. When the medical leadership of the profession gets away from big hospitals and comes to earth in the real field of medical service recognizing the small hospitals as aids, we can do big things.

Every doctor and every person in the country who can should send five dollars to the American Cancer Society, 350 Fifth Ave., New York 1, N. Y., for membership so as to help the cause against this killer of human beings, so as to keep informed on what is going on in the field of investigation, in treatment, and cure.

The December meeting of the Northeast Mississippi Thirteen Counties Medical Society will be held in Tupelo. We are glad to go back to Tupelo for our fourth quarterly meeting as usual. Tupelo is centrally located and it knows how to give splendid entertainment. Let us make it a record meeting.

(*continued on page* 465)

News and Comment



DR. E. VERNON MASTIN

Saint Louis, Missouri
President, Southern Medical Association, 1945, which holds its annual meeting in Cincinnati, Ohio, November 12-15.

POSTGRADUATE COURSE IN ALLERGY

The American College of Allergists offers an intensive, practical course in allergy for 5½ days, November 5 to 10, inclusive, at Thorne Hall, Northwestern University, Superior and Lakeshore Drive, Chicago, Illinois. Men in the service will be admitted free of charge, and for others the registration fee is $100.

Inquiries should be addressed to the secretary of the American College of Allergists, 401 La Salle Medical Building, Minneapolis 2, Minnesota.

Deaths

DR. F. F. YOUNG

Mississippi physicians and laymen over the entire state learned with regret of the death of Dr. F. F. Young, founder and medical director of Fenwick Sanitarium, Covington, La., for more than a half century. He died September 26 at the age of eighty-two years. The son of a physician, he also had five brothers who were physicians and four sons who are physicians.

Dr. Young was one among the pioneer psychiatrists of the South. His opinion for many years that the alcoholic and drug patient was a psychiatric and medical problem has become today the accepted view. He wrote many articles on psychiatric problems, and especially those concerning the alcoholic, the narcotic and maladjusted nervous individuals.

He moved to Covington from Abbeville, Louisiana, where he founded the Fenwick Sanitarium, in 1912.

Dr. Young was the first physician to report cases of beri-beri in Louisiana. This report appeared in the *Journal of the American Medical Association* of January 10, 1903. Beri-beri today is recognized as a vitamin deficiency.

He graduated from St. Charles College, Grand Coteau, Louisiana, 1881, from the University of Louisiana (now Tulane) in 1884, and interned at Charity Hospital, New Orleans, La., for a year. He did postgraduate work at Columbia University, New York, New York Postgraduate, New York Polyclinic and other eastern schools.

Dr. Young was a member of the St. Tammany Parish Medical Society, Sixth District Medical society and a fellow of the American Medical Association. He was a member of the Louisiana Hospital Association, The American Hospital Association and The National Association of Private Psychiatric Hospitals. He was an honorary member of the Alpha Kappa Medical Fraternity, Alpha Theta Chapter at Medical Department, University of Texas, Galveston, Texas.

Dr. Young took an active interest in political and local affairs and his charitable acts were numerous.

Surviving are one daughter, Mrs. Robert E. Putman, Shreveport, La., and five sons, Dr. John Dalton Young, Shreveport, La., Dr. L. Roland Young, Daytona Beach, Fla., Albert Laurie Young, Dr. Roy Carl Young, Dr. Francis F. Young, Jr., all of Covington, La.; one brother, Dr. Lawrence R. Young, Meadeville, La.; and three sisters, Mrs. Eugenie McHenry, Zachary, La., Mrs. John J. Robira, Jennings, La., and Mrs. E. A: Dieker, Cincinnati, Ohio:

DR. WALTER BRUCE MAXWELL

Dr. Walter Bruce Maxwell, 93, died September 21 at his home in Nesbitt, where he was born August 2, 1852. He graduated from Louisville Medical College and returned to Nesbitt to take up his father's profession and practiced there until 1920.

He was appointed postmaster of Nesbitt by Grover Cleveland, and resigned forty years later with a perfect record. He also operated a drug store for years after he abandoned his medical practice.

He was a member of the Nesbitt Presbyterian Church.

Surviving are four sons, Raymond Maxwell, David W. Maxwell of Memphis, and Norman B. and Walter Bruce Maxwell, Jr., of Nesbitt, and two daughters, Miss Mary Maxwell of Nesbitt, and Anne Byrd of Whitehaven.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—**James G. Thompson, Jackson.**

Ear, Nose and Throat—**Edley Jones, Vicksburg.**

Obstetrics and Gynecology—**J. F. Lucas,** Greenwood.

Orthopedics—Thomas H. Blake, **Jackson.**

Public Health—**Felix J. Underwood, Jackson.**

Pediatrics—Harvey F. Garrison, **Jackson.**

Radiology and Roentgenology—**Karl O. Stingily,** Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, **Vicksburg.**

Urology—Temple Ainsworth, **Jackson.**

PEDIATRICS

THE IMPORTANCE OF DETECTING TUBERCULOSIS IN CHILDREN. The Journal A.M.A., July 21, 1945. J. A. Myers, M.D. F. E. Herrington, M. D., Minneapolis and E. Garcia Saurez, M. D. Santiago, Chile.

The authors have this to say concerning Detection of Tuberculosis in Children:

"Children infected with tubercle bacilli under the age of twelve years occasionally develop the acute reinfection type of tuberculosis, such as miliary disease, pneumonia, meningitis, pericarditis, pleuritis, peritonitis and synovitis. During this age period the chronic reinfection type of disease occasionally develops in the extrathoracic organs such as the bones and joints, but the lungs are involved with great rarity. The reinfection type of chronic pulmonary tuberculosis begins to make its appearance among tuberculin reactors in the early teen ages and increases in frequency with the decades. Since this fact was established the previous enthusiasm for examination of school children has waned; indeed, in some places such work has been abandoned. This is an extremely unfortunate situation and is without practical or scientific foundation.

Every child who reacts to tuberculin has primary tuberculosis (tuberculosis infection). This disease begins with the first focalization of tubercle bacilli by neutrophils. From this stage it is a matter of reinfections and the like which determine whether the disease will incapacitate or kill. Illness and death from tuberculosis always begin with the simple and apparently harmless infection, just as "a journey of a thousand miles begins with a single step." To refuse or neglect to find the infected child and conduct the necessary procedure in his behalf in any community is to ignore or overlook an important phase of tuberculosis work.

The finding of primary tuberculosis (tuberculous infection) in a child invariably establishes two important facts: 1. Usually a contagious case has been in the child's environment. (Obviously the infected person should be sought, if still alive, and be prevented from spreading tubercle bacilli).

2. The child has at least lesions of primary tuberculosis containing living tubercle bacilli. Moreover, his tissues have become so sensitized to tuberculo-protein that this substance is now a deadly poison to them. The sensitivity makes reinfections from exogenous or endogenous sources far more dangerous to him than was the first infection; therefore physicians, public health workers and parents must be constantly on guard for the destructive type of lesions in any one of many parts of the body.

The toll of primary tuberculosis is far greater than is generally realized. Bogen made a painstaking analysis and concluded that approximately 50 per cent of infected persons at some time have clinical lesions. Not all who develop such lesions die from them—many are not even incapacitated. Nevertheless, the toll in morbidity and mortality is significant."

"'In most parts of the world at present the children constitute the only group over which one can exercise complete tuberculosis control. The child is born free from tubercle bacilli, and if his environment is adequately guarded his body will remain uncontaminated with these organisms. This necessitates complete examination of all who are to be his adult associates to find (1) those who already have clinical tuberculosis and (2) those who react to tuberculin and are potential cases of such disease. Those who on first or subsequent examination are found to have clinical tuberculosis must be kept from the child's environment unless it can be proved continuously that their disease is not contagious. The child himself should be tested periodically to make sure that no unsuspected contagious case among transients and the like has come into his environment and infected him. This procedure should not be limited to childhood but should be continued when adulthood is attained. This is not a theoretical consideration of idealists. It is actually in practice with a high degree of success and must be the ultimate goal in every home and community."

COMMENT

This is a most valuable article and should be read by every practitioner in Mississippi. I seriously doubt if we are doing a sufficient amount of tubercular testing on children because when we get a positive tuberculin in children we know that child has been definitely exposed to an open case of tuberculosis, hence, the importance of finding the carrier or contact and eliminating the exposure since it is dangerous to not only this child but to other children with whom he may come in contact.

In our experience the patch-tuberculin test has served just about as well as the intradermal test, in fact, it is our practice to do the patch test first and if it shows positive we then do the intradermal test and if both are positive we then resort to x-rays of the chest.

These authors bring out the point of the uselessness of x-rays in making a diagnosis of tuberculosis in children to which we heartily agree and yet we feel that these positive reactors should be x-rayed just the same as if one were taking the temperature to see if they had fever. Occasionally one will see some pathology by x-ray that would not be detected otherwise. All in all this is a splendid article and we would commend it be read by the medical profession of this state.

State Board of Health

Felix J. Underwood, M.D.

HEALTH AND THE VICTORY

GOOD HEALTH unquestionably played a tremendous role in the victory the allies have just achieved over the most ruthless aggressors of all time. The relative freedom from epidemic disease which has hampered the course of previous wars and the extreme care given to protecting health contributed immeasurably to the all-time record of American production and to the efficiency of our fighting men.

Peace has come at last, but if it is to last we must devote to it the same intensity of effort and purpose given in bringing the enemy to its knees. The brave spirit of those who bore the brunt of the long, bitter struggle to bring order out of chaos and light again to the world can never be forgotten, and our gratitude can be but a humble outpouring as we reflect upon how much it has cost to give civilization another chance. The courage, unselfishness, resourcefulness and ingenuity of those who made victory possible should inspire constructive activity more than ever before to make a better way of life for mankind. A new era has come and because of the recent developments in destructive science the basic truth that the most important thing in all the world is knowledge of how to live. Nothing must be left undone to put to work for mankind's good the scientific discoveries of the past few years. Given the same skill, organizing ability and spirit of unselfishness which went into our war efforts, great things can be achieved.

In gaining knowledge of how to live, health comes to the forefront. Invention and discovery would be of little value if man did not have the ability to use and enjoy the fruits of his labor. Good health is therefore of first importance. The most remarkable scientific discovery will never overshadow this fact. Victory over diseases is the goal toward which we now strive — it is possible to achieve it if given proper support.

Many public health activities were necessarily curtailed during the war. Swatting every other fly and killing every other mosquito does not make for the most effective program, but when funds and personnel are limited there seems little effective program, but when but when funds and personnel are limited there seems little alternative. There is much unfinished work in public health and it is earnestly hoped that adequate attention can be given many of its neglected phases at the earliest possible moment. Tuberculosis, hookworm disease, typhus fever and certain other preventable diseases are far too prevalent and can and must be brought under control. Undulant fever can be checked by the pasteurization and safeguarding of milk supplies. Full time local health service for every area of the state is one of the first essentials in insuring adequate health protection to all citizens. This has long been one of the major goals of the State Board of Health and one which it is hoped can soon be achieved. Health accomplishments as related to expenditure of funds have been good in the past, but as we face the future it is all too obvious that there are many needs which must be met and problems which must be solved. Public health workers pledge their best efforts in helping man attain that most important of the four freedoms — freedom from disease. With the continued coöperation of the medical and allied professions and adequate legislative and other support, there is every hope that a new peak in health security will be reached in the not far distant future.

*****

School Nursing Service

The school nursing service is not a specialized service, points out Miiss Lucy E. Massey, school health nurse, but is one of the regular functions of all public health nurses. It does have its special problems however and calls for close collaboration with teachers and others attached to the educational system. The team formed by the nurse and the teacher wields a broad influence in the guidance and development of children, enabling them to learn early the essentials of wholesome living. Among the duties of the school health nurse are the following:

1. Plan regular visits to the schools of her district.
2. Advise with teachers and school administrators in regard to the development of effective school health programs.
3. Instruct teachers in groups and individually concerning health services which they may perform; for example, vision testing, weighing, hearing testing, etc.
4. Assist teachers in control of communicable diseases through instructing them in recognition of symptoms and preventive measures.
5. Act as consultant with the teacher in regard to health problems of the individual children.
6. Interpret the child's health needs to parents, teachers, and to the children themselves.
7. Make home visits to inform parents of the child's needs and also to learn something of the child's background.
8. Discover and promote community services and agencies which can be used to aid both teachers and parents in giving better health care to children.

To serve most efficiently, the school health nurse must necessarily have an understanding of the technics and methods of modern education. She needs to know enough about the problems of the school to make her own contribution realistic and practical. Both nurse and teacher must realize the need for careful integration of their services to the child in order to attain the most effective results.

The School Health Service inaugurated in July, 1942 under the joint administration of the State Board of Health and the State Department of Education has been able to record good progress. In addition to the School Nursing Service its program is concerned with (1) the training of teachers to qualify them to supervise a classroom group of children in good health practices; (2) school nutrition and school lunchrooms; (3) medical correction of the children's defects; and (4) a statewide program of physical education to permit the development of a higher level of physical fitness. The Health Education Division of the State Board of Health engages in a well-rounded program of community health education which contributes greatly to the total effectiveness of the School Health work.

*****

Cancer Control

A hopeful note in curbing cancer in Mississippi comes with the announcement that the American Cancer Society is establishing state offices in the Lorenz Building, 514½ Amite Street, in Jackson. Bringing its program of "Fight Cancer with Knowledge" closer home to Mississippians, greater effort will be directed toward educating people regarding the early symptoms of cancer and the importance of early diagnosis and immediate treatment. Provisions will be made for assisting cases unable to secure treatment otherwise. Physicians of Mississippi are already coöperating to insure the success of this important work. The American Cancer Society, since its organization in 1913, has always been interested in and has stressed the educational phase of the program. Its success, however, depends upon the availability of diagnostic and treatment facilities and a medical prefession skilled in their use and prepared to make the benefits available to cancer patients. Provision must therefore be made for the care of people who have been reached by educational efforts. Serving as regional medical director of the American Cancer Society is Dr. Alton Oschner. Dr. Felix J. Underwood is chairman of the State Executive Committee and Mrs. Elizabeth N. Wates is state commander. It is planned to organize local units in each of the eighty-two counties at the earliest possible date in order that the educational programs may be carried out most effectively.

*****

Use of DDT

It has been reported that the discovery of the value of DDT in the control of certain insects, especially those capable of transmitting disease, has been the greatest single advance in preventive medicine to be developed during the war. Certainly this insecticide has been of immeasurable value in the protection of our troops against insect-borne diseases.

The information that has reached the public generally concerning the DDT has fired the imagination of thousands of our citizens to the extent that it appears many are laboring under a mass of misinformation, and are looking to DDT to relieve them forever from the trials and tribulations of household pests. It appears that many people believe once they can secure a quantity of the material they will be freed from the annoyance of mosquitoes, flies, cockroaches, bed-bugs, moths and other common household pests. DDT has wonderful properties in destroying insect life of the household variety when used in proper amounts, in the proper way, and with proper equipment. It definitely has limitations and its use without proper knowledge of these limitations will not produce the results the public is expecting.

The receptiveness of the public to its use and the desire to secure the material is also likely to produce some disappointment as products are likely to appear on the market which, though they may contain some DDT, will not do what the individual expects of them. To this end one should purchase DDT insecticide only from reliable concerns in whom one has confidence.

For household purposes DDT preparations are likely to appear in several forms. One form is likely to be a two and one-half to a five per cent aqueous emulsion for use as a residual spray. This material when sprayed on the interior walls and ceilings of houses in proper amount and with proper equipment will be quite effective in destroying household insects that rest on the walls for a sufficient length of time. The material so applied will have a residual effect which will last for several months. To be effective against cockroaches, this emulsion should be forced into all cracks and crevices, and should be carefully applied in pantries, around cupboards, sinks, the undersides of tables and other darkened shelter where roaches hide during the day.

A five per cent solution in kerosene will likely also be available. In this form it should be particularly effective when properly applied around stables, dairy barns, on screens or other surfaces unaffected by kerosene.

The material is likely to appear on the market in the form of a ten per cent dust. This is effective in the control of fleas on dogs but should not be used on cats. DDT has toxic properties and cats dusted with the material could lick sufficient of the DDT off their bodies to get a toxic dose. The dust when properly used and especially when dusted into cracks and crevices with a dust gun has value in the control of cockroaches.

DDT when mixed with standard insecticides appears to improve the killing powers of such insecticides. It is, therefore, likely that insecticides will appear on the market reinforced with DDT. These should be of value in fine sprays which give a quick "knockdown" of insects as the DDT will increase the percentage or kill over that of the same insecticide without DDT. Such insecticides will probably have little if any residual value since the percentage of DDT will be too low and little if any coating of wall surfaces with DDT will result from their use as "knockdown" insecticides.

DDT preparations are of value in controlling insects around farm animals. Information for such uses, however, should be obtained from the State Plant Board of Extension Department at Mississippi State College.

Experience has indicated that for use around the home the materials must be properly applied in proper strength to get satisfactory results. This implies that proper equipment is needed. Until such equipment is available there is likely to be much disappointment in the results obtained. Since the amount of DDT contained in a preparation will determine to a great extent its efficiency for the purpose intended one should know the percentage of DDT in a preparation before buying it.

Since DDT is toxic to man and animals, it must be used with some caution around the house. It should not be allowed to come in contact with food or food utensils. It should not be used in oil solutions or emulsions unless the hands and other parts of the body it might come in contact with are protected since the skin absorbs DDT in oil mixtures. Too much absorption may lead to the development of a serious rash on the exposed skin and a severe nervous condition may develop.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	Aug. 1945	Aug. 1944	Aug. 5-Yr. Avg.
Acute Poliomyelitis	14	32	20.0
Bacillary Dysentery	1197	1568	1341.6
Dengue	0	0	0.0
Diphtheria	69	40	41.2
Influenza	1506	1080	1203.0
Measles	175	189	220.6
Meningococcus Meningitis	6	9	5.8
Other Forms Meningitis	4	3	2.6
Pellagra	217	257	280.0
Pneumonia	600	456	435.2
Pulmonary Tuberculosis	132	122	131.6
Scarlet Fever	33	30	28.8
Smallpox	0	0	0.0
Tularemia	5	4	3.8
Typhoid Fever	14	27	35.0
Typhus Fever	46	27	22.4
Undulant Fever	13	7	6.8
Whooping Caugh	471	968	744.8

	July 1944	July 1944	July 5-Yr. Av'ge
Acute Poliomyelitis	2	23	14.8
Bacillary Dysentery	1728	2285	2177.4
Dengue	0	0	.2
Diphtheria	28	25	21.6
Influenza	909	1042	994.0
Measles	306	396	375.6
Meningococcus Meningitis	6	7	6.4
Other Forms Meningitis	6	3	1.8
Pellagra	218	230	308.2
Pneumonia	438	509	400.8
Pulmonary Tuberculosis	143	160	135.4
Scarlet Fever	24	10	15.4
Smallpox	1	0	.4
Tularemia	2	2	1.8
Typhoid Fever	15	19	30.0
Typhus Fever	25	22	13.6
Undulant Fever	15	5	4.4
Whooping Cough	644	1239	941.0

Woman's Auxiliary

President	Mrs. L. J. Clark	Vicksburg
President-Elect	Mrs. Stanley Hill	Corinth
First Vice-President	Mrs. H. C. Ricks	Jackson
Second Vice-President	Mrs. Henry Boswell	Sanatorium
Third Vice-President	Mrs. W. H. Anderson	Booneville
Recording Secretary	Mrs. Geo. W. Owens	Jackson
Fourth Vice-President	Mrs. Ben Walker	Jackson
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey Garrison	Jackson

FROM OUR PRESIDENT

Dear Auxiliary Member:

The new year has started and by this time the auxiliaries have held one or more meetings. I trust that you have started the year with renewed interest and enthusiasm and an honest endeavor to increase the usefulness of the organization we are privileged to be members of.

Now is the time to get subscriptions to *Hygeia.* Our state is lagging in the circulation of this excellent magazine. Unless we as doctors' wives promote the sale of this health magazine we cannot expect other groups to do so. Many cash prizes are offered to auxiliaries with the greatest increase in sales of *Hygeia.* Let's get busy and try for some of these prizes. The contest closes January first.

The fall executive board meeting of the Auxiliary was held in my home in Vicksburg and I was most appreciative of the good attendance. It was a privilege and great pleasure to be hostess to this enthusiastic and interesting group of leaders in the state. I am not unmindful of the difficulty yet experienced in travel and I am deeply grateful for the presence of each board member.

The four-year medical school and the proposed law on pre-marital examinations were endorsed by the executive committee. We shall endeavor to give these measures our best efforts.

My objective in membership is "every doctor's wife an Auxiliary member." Please make an honest effort to set every doctor's wife in our state into her local organization. It is preferably to affiliate with an organized auxiliary but if that is not possible, become a member-at-large.

With every good wish for your continued effort and interest and with the earnest desire for the broadening of your service to the community and state, I am

Cordially,
Anne J. Clark, President.

NEW AUXILIARY ORGANIZED

Doctors' wives in the second district came together during a meeting of the North Mississippi Medical Society on October 23 and were organized into a new auxiliary. The state president, Mrs. L. J. Clark of Vicksburg, and Mrs. Stanley Hill, president-elect and organization chairman, assisted.

Officers elected are: president, Mrs. V. B. Harrison of Oxford; vice-president, Mrs. D. W. Whitaker of Sardis; secretary-treasurer, Mrs. A. H. Little of Oxford; and *Hygeia* chairman, Mrs. J. R. Sims of Oxford. Others present who became charter members included, Mrs. J. S. Donaldson of Oakland, Mrs. E. R. Shirley of Money, Mrs. G. H. Wood of Batesville, Mrs. Lee Rogers, Jr., and Mrs. John Culley of Oxford. Mrs. L. L. McDougal of Booneville and Mrs. J. K. Avent of Grenada were visitors.

After explaining the purpose of the organization, Mrs. Clark was followed by Mrs. Stanley Hill, who emphasized the helpfulness of both the *Bulletin* and the yearbook, and pointed out ways doctors' wives can aid their husbands through membership in the Auxiliary. Mrs. J. K. Avent, legislative chairman, reported on the advantages of a pre-marital law, the importance of opposing the Wagner-Murray-Dingell bill, and encouraged support of the proposed four-year medical school for Mississippi.

Dinner was arranged in the university cafeteria for the doctors and wives who attended.

ISSAQUENA—SHARKEY—WARREN

The Issaquean-Sharkey-Warren County Auxiliary held its first meeting for the season October 24 in the home of Mrs. Hugh Johnston.

The new president, Mrs. Edley Jones, presided graciously and welcomed the out-of-town guests, who were Mrs. Edward King and Mrs. Ralph Platou from New Orleans, Mrs. Toxey Hall from Belzoni, Dr. Virginia Howard and Dr. Estelle Magiera from Jackson.

Dr. Virginia Howard, who is with the State Board of Health, was the guest speaker and gave a most instructive talk on maternal and child care. She stated that ten years ago the problem was infection, today it is nutrition, and in the future it probably will be mental health. She gave very interesting statistics.

After the meeting adjourned, tea was served in the dining room. The table was beautifully appointed with a handsome lace cloth and a silver bowl of pink roses. The hostesses were Mrs. Hugh Johnston, Mrs. Sidney Johnston, Mrs. Lawrence Clark, Mrs. George Martin, president—Mrs. Edley Jones, president-elect—Mrs. Augustus Street, first vice-president—Mrs. James O'Dell, secretary—Mrs. Willard H. Parsons, treasurer—Mrs. Martin Lewis, parliamentarian—Mrs. Sidney Johnston, historian—Mrs. W. C. Poole.

NORTHEAST MISSISSIPPI THIRTEEN COUNTIES AUXILIARY

The members of the Northeast Mississippi Thirteen Counties Auxiliary met in September at the home of Mrs. W. N. Reed of Amory, the doctors' wives of Amory sharing in extending the hospitality. Georgeous gladioli and asters were used throughout the house in artistic arrangements, adding charmingly to the decor of the setting.

Following a deliciously planned luncheon, served buffet style, Miss Derrecott of Amory played a number of piano selections, after which the group went into a business session. Mrs. Stanley Hill of Corinth presided, in the absence of the president.

CENTRAL MEDICAL AUXILIARY

The Woman's Auxiliary to the Central Medical Society held its first fall meeting on Tuesday in the lovely home of Mrs. R. C. O'Ferrall on St. Ann Street.

The meeting was called to order by Mrs. George Riley, the president, and prayer was offered by Mrs. Robert B. Price.

A short talk was made by the president and some plans for the coming year were discussed.

The members were delighted to have as their special guest, the state auxiliary president, Mrs. Lawrence Clark of Vicksburg, who was introduced by Mrs. Riley. Mrs. Clark brought an inspiring message, stressing membership, Doctors' Day and *Hygeia.*

After the business session, members and guests were invited into the dining room, where delicious ices, sandwiches and cakes were served from a beautifully appointed table.

Hostesses were: Mrs. R. C. O'Ferrall, Mrs. Tom Blake, Mrs. A. L. Gray, Mrs. W. L. Hughes, Mrs. Robert Price, Mrs. J. A. Milne, Mrs. George Riley, Mrs. J. O. Segura.

Those present were: Mrs. Byron Alexander, Mrs. J. F. Armstrong, Mrs. W. R. Bethea, Mrs. J. G. Blaine, Mrs. Tom Blake, Mrs. John Carr, Mrs. Lawrence Clark, Mrs. B. C. Campbelle, Mrs. J. Gordon Dees, Mrs. C. H. Denser, Mrs. F. A. Donaldson, Mrs. Boyd Edwards, Mrs.. Harvey Garrison, Mrs. A. L. Gray, Mrs. P. R. Graves, Mrs. W. F. Hand, Mrs. Robin Harris, Mrs. T. B. Holloman, Mrs. N. C. House, Mrs. I. C. Huggins, Mrs. W. L. Hughes, Mrs. G. M. Knowles, Mrs. Lawrence Long, Mrs. J. B. Marshall, Mrs. A. J. McIlwain, Mrs. J. A. Milne, Mrs. I. J. Newton, Mrs. R. C. O'Ferrall, Mrs. George Owen, Mrs. Robert B. Price, Mrs. Guy Post, Mrs. A. E. Pullon, Mrs. Lee Reid, Mrs. George E. Riley, Mrs. H. C. Ricks, Mrs. J. O. Segura, Mrs. W. A. Smithson, Mrs. W. C. Thompson, Mrs. I. B. Trapp, Mrs. N. B. Walker, Mrs. J. P. Wall, Mrs. A. G. Wilde, Mrs. T. E. Wilson, Mrs. N. C. Womack, and Mrs. Yates.

(*continued from page* 457)

AMERICAN COLLEGE OF CHEST PHYSICIANS

The meeting of the American College of Chest Physicians, to be held conjointly with the Southern Medical Association, is scheduled for November 11 through November 12, 1945, in Cincinnati, Ohio.

Believe it or not, Dr. L. L. McDougal, Sr., of Booneville, reports that the father of the first baby he ever delivered, July 3, 1905, is the father of the last delivered, August 13, 1945, forty years and forty days difference in the ages of the two babies, half-sisters. Can you match Dr. McDougal with one as good?

Arkansas has one physician to 1079 population, Louisiana, one to 900 people, Tennessee one to 984, while Mississippi has only one to 2200 population. Arkansas has one medical school, Tennessee has three, and Louisiana has two. And yet we hear some saying that having a medical school makes no difference about the number of doctors we have. Doctors above all people should keep their minds open to the truth and think straight.

We are now extending a cordial invitation to all doctors in the state who have been practicing fifty years to be our guests at a luncheon at the Mississippi State Medical Association at its annual sessian next May in Jackson.

According to a recent hospital survey, Hinds County has one doctor to every 1262 people while Claiborne has one to 6,405, which, of course, indicates the need of a better distribution of doctors.

On the per capita distribution of funds system, the hospitals did receive two and one-half dollars per day for a room, a ward bed. If this were increased to four and a-half per day per bed, it could serve a double purpose. The larger and better equipped hospitals in the larger towns would be more willing to take the charity patients into their institutions, while this boost of price would be a real help to the small hospital struggling for existence, would enable it to have better equipment and to give better service.

To the best of our information Mississippi has 112 hospitals in the state as follows: twelve with less that 111 beds, forty-one between eleven and twenty-six; twenty-three between twenty-six and forty-nine; twenty-nine between sixty and ninety-nine beds, and seven with a hundred beds and over. Yet our state seems to have the lowest number of beds per thousand population of any state in the union, about 1.6 and in beds occupied just a few years ago it was at the foot of the list. Our hospitals, however, are quite well distributed. It would seem that in number we have really more hospitals than needed. Private individuals have done some fine missionary work in furnishing hospitals for public service, but the time is now at hand to consolidate some places into health centers and have more non-profit open hospitals made stronger and better equipped than the ones we have. Let us think along this line sincerely and unselfishly.

FOR ASSURED ASSIMILATION
WARREN-TEED *Ri-Plex*

Parenteral B Complex
Administration

- Proper assimilation and utilization of needed vitamin B complex is a problem often solved only by parenteral administration. Warren-Teed Ri-Plex is easy to administer (small volume dose); may be injected intravenously, subcutaneously, or intramuscularly; causes patient no appreciable discomfort. Ri-Plex frequently offers the solution to such conditions as:—

Nausea and Vomiting of Pregnancy

Latest reports indicate the greater effectiveness of mixed vitamin B factors.

Secondary Anemia

Contains several factors necessary to the assimilation of iron and regeneration of blood.

Chronic Gastro-Intestinal Malfunction

Eliminates all doubt of complete assimilation and utilization of B complex factors.

★

Each 2 cc. Ri-Plex Ampul contains:

Thiamine Hydrochloride 10 mg. — Riboflavin 4 mg. — Nicotinamide 150 mg. — Pyridoxine Hydrochloride 5 mg. In Isotonic Solution of Sodium Chloride. Supplied in 2 cc. ampuls in boxes of 12 and 25.

WARREN-TEED
Medicaments of Exacting Quality Since 1920
THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Uterosalpingography*

An Analysis of Twenty-five Unselected Cases.

P. E. SMITH, A. B., M. D., F. A. C. S.

Hattiesburg, Miss.

As THE name implies, uterosalpingography is x-ray photography of the uterine and tubal cavities following injection of a radiopaque fluid.

In 1914, two French doctors, Dartigues[1] and Dimied, worked out this method, but due to the war their results were not published until 1916. In the meantime, W. H. Cary published a "Note on Determination of Patency of Fallopian Tubes by Use of Collargol and X-ray Shadows", and claimed the honor of being first to use this method. In 1915, I. C. Rubin published his results with the use of collargol. Its use was abandoned because of its lack of opacity and severe peritoneal reactions incited by it.

In 1921, Sicard and Forrestier used lipiodol, which was developed in 1902 by Lafay, in successfully demonstrating body cavities. Its advantage over media used previously is its non-irritating character, slow absorption, its viscosity and high opacity — 40 per cent iodine — its self-disinfecting and mild germicidal properties. They did not mention lipiodol in uterosalpingography. In 1921, Heuser of Buenos Aires first described the use of lipiodol in this connection and he made the first uterosalpingograms with lipiodol. Carelli of Buenos Aires also published beautiful pictures of the injected uterus and tubes independently. The method thereafter spread universally and many have published the results of their experiences with hundreds of cases bringing about improvement in technique and in the interpretation of the films.

In 1923, Kennedy reported use of a 20 per cent solution of sodium bromide and demonstrated tubal occlusion in eighteen cases. Laquerriere and others used sodium bromide and sodium iodine.

Williams and Reynolds, in 1925, made uterosalpingograms by injecting an emulsion of barium sulphate and bismuth. None of these methods were entirely satisfactory.

In 1937, Titus, Tafel, McClellan and Messer[2] called attention to troublesome reactions, such as "chemical" salpingitis, which occasionally follow use of lipiodol and advocated use of aqueous 40 per cent skiodan in 20 per cent acacia (Winthrop) as being suitable for visualization with the minimum of local irritant reaction.

In 1939, Hellman, Jonas and Rosen[3] presented a series of twenty-four cases in which skiodan-acacia solution was used and satisfactory roentgenograms were obtained with no untoward reactions.

In 1939, Rubin[4] published "The Comparative Value of Radiopaque Substances Used in Uterosalpingography". His experiments were performed on the rhesus monkey, because this animal resembles most the human being. The solutions used were diodrast, hippuran, skiodan with acacia, umbrathor, lipiodol and iodochlorol. He concluded that iodochlorol yielded satisfactory roentgenograms. Umbrathor gives good shadows, but its persistence is disadvantageous. The crystalline iodine compounds, even skiodan with acacia, passed into the peritoneal cavity so rapidly, that the tubal outlines were overshadowed.

In 1944, Hudgins[5] demonstrated his uterine canula which is cone-shaped, and screw type, with a ball valve to prevent escape of fluid, and is adaptable to a Luer syringe. It remains in place until after the films are made, and is then removed. It facilitates the injection, and allows the patient to walk to the x-ray room after the injection has been made on the examining table.

The normal findings show the uterus to be triangular in shape and smooth in outline. The fallopian tubes are small dense penciled lines, which increase in diameter gradually from about the middle to the fimbriated ends. Their course is usually lateral from the cornua, and it is undulating. There is a sphincter at the cornual end, a spasm of which sometimes leads to failure of filling of the tube, and the erroneous diagnosis of tubal occlusion. This error can be overcome by prolonging the period of injection. Oil which has escaped from the fimbriated end of the tube casts large irregular shadows and appears as droplets at times. The presence of excessive amounts of oil may overshadow important structures and should be avoided.

---

*Read before the Hattiesburg Clinical Society on September 16, 1945.

Indications: Conditions in which uterosalpingograms may give diagnostic information are: (a) **Anomalies of the uterus,** such as infantile uterus and bicornate uterus, and the degree of deformity. Malpositions are readily diagnosed bimanually and uterosalpingography is not needed nor desirable. (b) **Sterility.** Uterosalpingography often is able to offer very definite information after the gynecologist has exhausted all of his other diagnostic procedures. Schmitz states that the Rubin test is used in sterility to determine the patency of the tubes and that salpingography is used to locate the site of the obstruction. Pfaler[6] and Vastine state that it has a border field and also it not infrequently shows the tubes to be open when the Rubin test indicates that they were closed. Uterosalpingography is of value in checking the results of operations for sterility as salpingostomy and tubo-uterine implantation. (c) **Pathology of the tubes** — Occlusion of the fallopian tubes by an inflammatory process occurs most frequently at the fimbriated ends. In this event, a clubbed appearance of the lateral ends occurs which varies in size. If the uterine end is blocked, all that can be reported is an occlusion of the uterine end of the tube. If the block is only partial and a few drops enter the dilated tube, they form globules close together presenting the typical mulberry appearance of hydro- or pyosalpinx. Numerous instances are on record of clinical relief following injection of lipiodol for diagnosis in cases of chronic inflammations of the uterus or tubes, due to its germicidal value. Also cases have been reported of women later becoming pregnant after this procedure. This may possibly be explained by the presence of a slight adhesion of the fimbriated end of the tube as a result of a low grade inflammatory process which has been opened by the pressure of the injection, and remained open due to the oily and germicidal properties of the lipiodol. (d) **Ovarian or parametrial tumors** — These usually produce an elongation and narrowing of the fallopian tube with the smooth curve conforming to the shape of the tumor. The uterus and the tube are displaced. (e) **Uterine tumors.** Subserous fibroids may produce no change in the cavity of the uterus. Submucous fibroids and polyps produce a defect in the outline of the uterine cavity.

Contraindications are cases of recent hemorrhage, inflammatory conditions that are not completely quiescent, active infections, malignancies, especially those involving the cervix, uterine gestation, fever and menstruation. The time to perform uterosalpingography is about a week after cessation of menstruation.

A few dangers may be mentioned such as exacerbation of an old infection, "chemical" salpingitis, ruptured tube, abortion, accidental

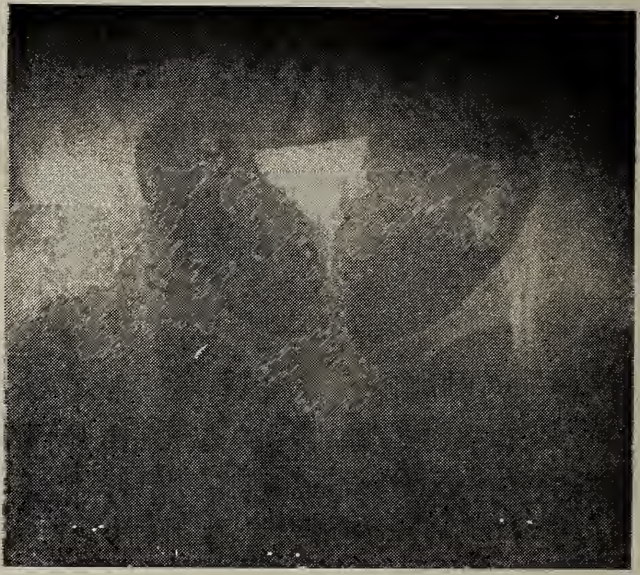


Figure No. 1. Case No. 10 shows a normal uterosalpingogram.

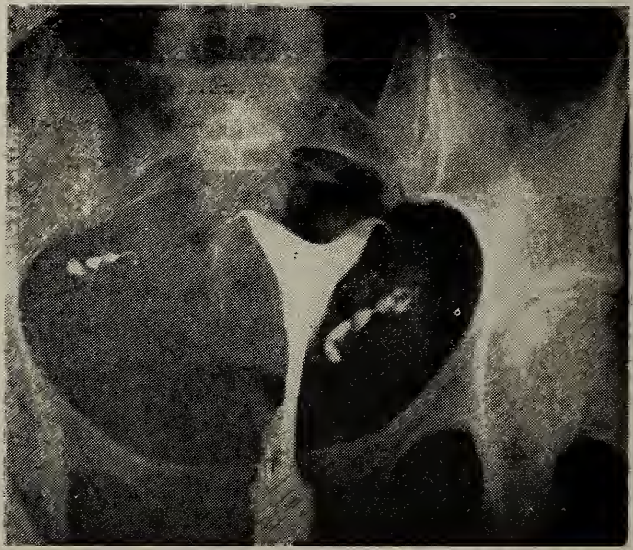


Figure 2. a. Case No. 11 shows uterus to be normal and both tubes closed at the fimbriated ends. This film was taken immediately after injection of the iodochlorol.

injection of iodized oil into the veins of the uterus from too much pressure. This is of no consequence, as shown by Cicard and Forrestier, by injecting the oil directly into the blood stream of animals and human beings. Crandell and Walsh have shown that the iodized oils are non-irritating to the peritoneum. These dangers can be obviated by careful selection of cases and gentle technique.

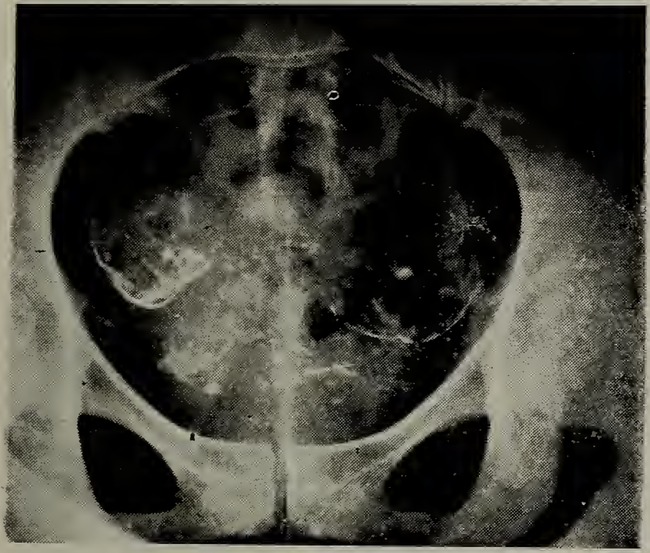


Figure 2. b. Case No. 11. Film taken 3 days after injection of iodochlorol shows oil in the peritoneal cavity.

Iodochlorol was used in the twenty-five cases here reported, and the technique was carried out on ambulatory patients in the supine position on a roentgen table. No anesthesia or sedation was used. Instruments used: vaginal speculum, open on one side, cervical tenaculum, uterine sound, uterine canula that has a cone-shaped rubber guard to prevent escape of the fluid from the cervix, and a pressometer (Becton-Dickerson and Co.) attached to the canula to inject the fluid under manometric pressure. A mercury pressure of about 170 mm. was used. The cervix and vagina were painted with tincture merthiolate, and under aseptic precautions, about 5 or 6 cc. of iodochlorol injected. The fluoroscope was used to determine when the uterus and tubes were full, and then the x-ray exposure A. P. was made, after which the fluid was allowed to escape from the uterus. Additional films, several days later, frequently showed the oil to have escaped through the fimbriated end of the tube into the peritoneal cavity, while the previous films taken immediately after the injection showed the oil still retained in the tube. The use of the Bucky diaphragm will give clearer pictures.

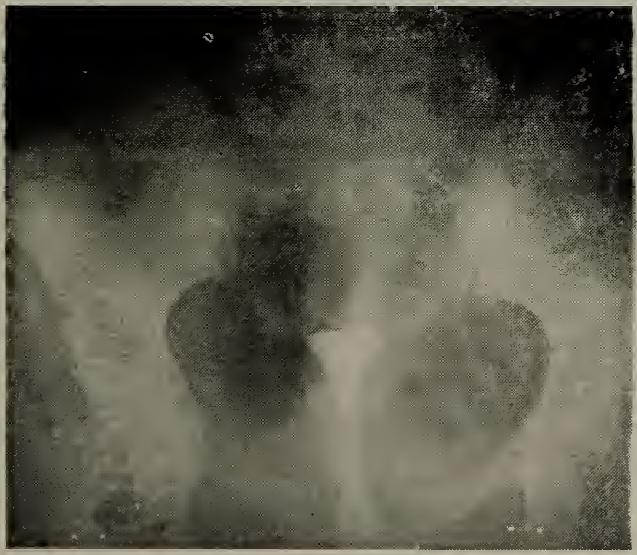


Figure No. 3. Case No. 13 shows uterine cavity to be normal and bilateral tubal obstruction at the cornua. his was probably due to an error in technique as the patient became pregnant about one year later. No delayed films were taken.

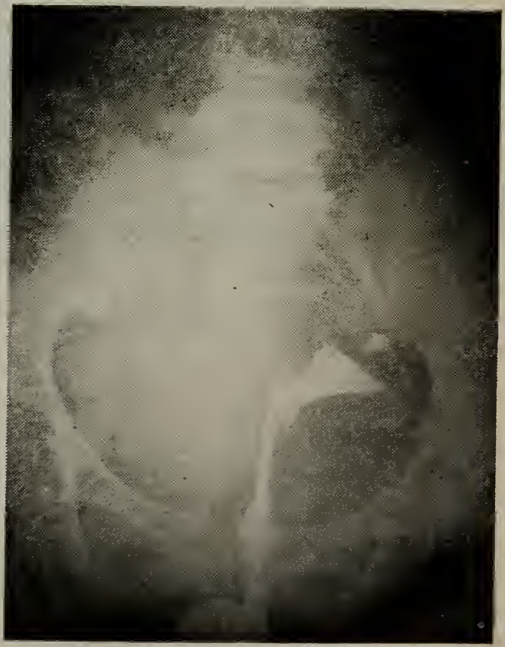


Figure No. 4. Case No. 9 shows the uterine cavity to be normal but pushed to the right by a large palpable cyst in the left tubo-ovarian region; left tube obstructed at the cornu and right tube obstructed at the fimbriated end.

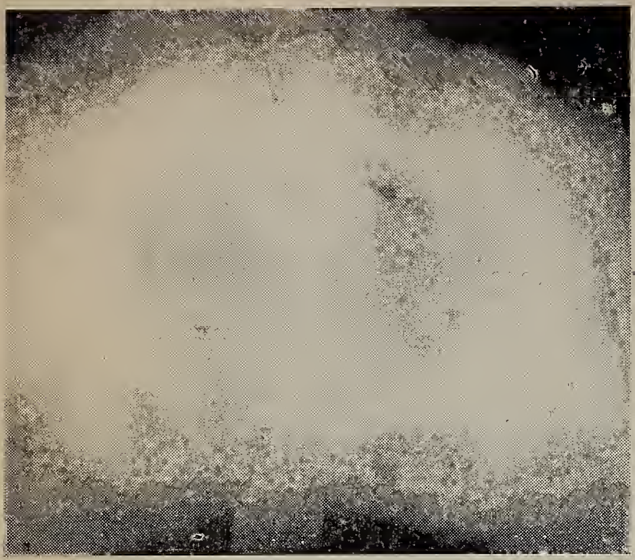


Figure No. 5. Case No. 16, Uterus normal, right tube closed at the fimbriated end and left tube at the cornu. No delayed films taken. Rubin test one week later showed one or both tubes to be open.

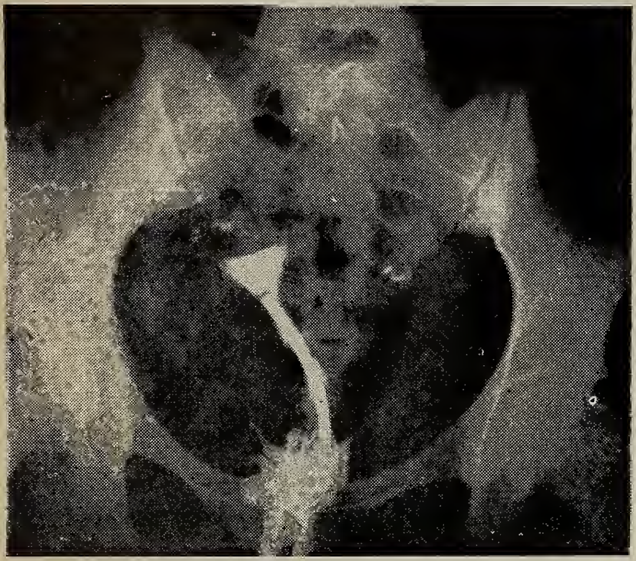


Figure No. 6. a. Case No. 18 shows normal uterine cavity but deviated to the right; tubes closed at the fimbriated ends.

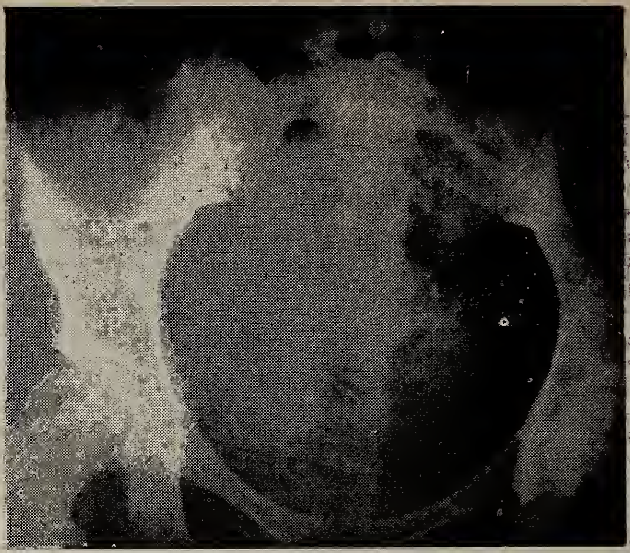


Figure No. 6. b. Case No. 18. Film taken one day after injection of oil showed no oil in the peritoneal cavity.

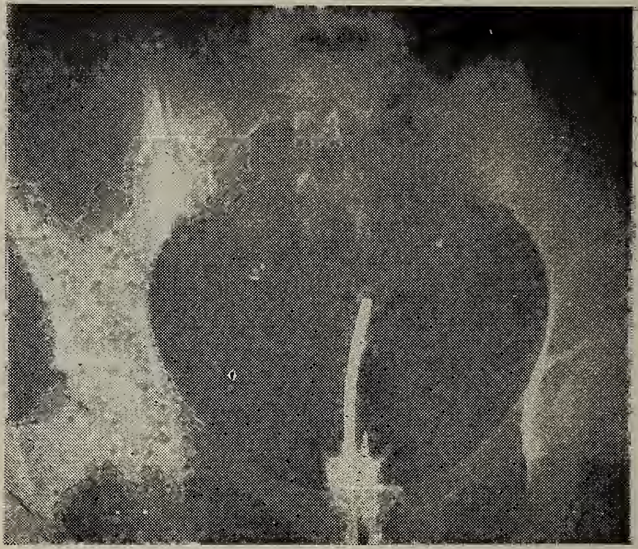


Figure No. 6. c. Case No. Laparotomy was performed one week after uterosalpingography. Pelvic adhesions liberated, both tubes insufflated with air from within and uterus suspended (Crossen method). This is a check-up uterosalpingogram made one year after the operation. Uterus normal and good position but tubes closed at the fimbria. No delayed films taken.

TABLE I. Report of Cases

NO.	AGE	Complaint or diagnosis	X-Ray Findings	Follow-up.
1	27	Sterility for 4 years.	Uterus normal; tubes patent.	Became pregnant 3 years later.
2	30	Sterility for 6 years.	Uterus normal; Left tube patent, right tube closed at the fimbria.	No pregnancies.
3	23	Sterility for 3 years.	Uterus normal; both tubes closed at the fimbria.	No pregnancies.

TABLE No. 1. Report of Cases, Continued.

NO.	AGE	Complaint or Diagnosis	X-Ray Findings	Follow-up
4	27	Sterility.	Uterus normal; both tubes closed at the fimbriae.	No pregnancies.
5	32	Sterility.	Uterus normal; tubes closed at the cornua.	No pregnancies.
6		Sterility for 7 years, following gonorrhea. child, 9 years old.	Uterus normal; rt. tube closed at middle, lt. tube closed at fimbria.	No pregnancies.
7	35	Sterility for 10 years. Has had Rubin test and cervix amputated for sterility.	Uterus normal; tubes closed at fimbriae.	No pregnancies.
8	27	Sterility for 2 years	Uterus normal; rt. tube closed at cornu lt. tube closed at fimbria and dilated.	No pregnancies.
9	27	Sterility for 3 years Large left cystic ovary	Uterus deviated to right; lt. tube closed at cornu, rt. closed at fimbria.	No pregnancies.
10	30	Sterility for 4 years. Husband has child, by first wife.	Uterus normal; tubes patent	No pregnancies.
11	28	Sterility, 2 years.	Uterus normal; both tubes appear closed at fimbriae. Film taken 3 days later shows oil in peritioneal cavity.	No pregnancies.
12	31	Sterility	Uterus normal; tubes closed at the fimbriae.	No pregnancies.
13	27	Sterility, 5 years	Uterus normal; both tubes closed at the cornua. No films taken later.	Became pregnant about 1 year later.
14	25	Sterility, 7 years.	Uterus deviated to right and anteflexed; tubes closed at cornua.	No pregnancies.
15	22	Sterility, 2 years. Spermatozoa normal.	Uterus normal; tubes patent.	No pregnancies.
16	23	Sterility, 3 years. Rubin test after revealed one or both tubes to be open.	Uterus normal; rt. tube closed at fimbria, lt. tube closed at cornu.	No pregnancies.
17	23	Sterility, 3 years.	Uterus normal; both tubes appear closed at fimbriae. 24 hr. film shows oil in peritoneal cavity.	Became pregnant soon after salpingogrophy menstruated oil once after.

TABLE No. 1. Report of Cases, Continued.

NO.	AGE	Complaint or diagnosis	X-Ray Findings	Follow-up.
18	25	Sterility, 5 years. Chronic pelvic inflammatory disease (quiescent.)	Uterus normal; tubes appear closed at the fimbriae 24 hr. film shows no oil in peritoneal cavity.	No pregnancies.
19	21	Sterility for 1 year.	Uterus appears rotated; tubes obstructed at the fimbriae. 24-hour film reveals no oil in peritoneal cavity.	No pregnancies.
20	20	Sterility for 2 years.	Uterus normal; right tube closed at cornu; left tube closed at the fimbria. 1 and 6 day film shows oil in the peritoneal cavity.	No pregnancies.
21	40	Sterility, 5 years.	Uterus deviated to the right and rotated; Both tubes obstructed at the cornua. Film 4 days later showed no oil in the peritoneal cavity.	No pregnancies.
22	27	Sterility, 2 years.	Uterus normal; both tubes obstructed at the cornua. 48-hour plate, no oil in the peritoneal cavity.	No pregnancies.
23	37	Sterility, 12 years. Artificial insemination every month for 1 year. previously. Spermatozoa, normal.	Uterus normal; left tube patent, right tube obstructed at the fimbria.	No pregnancies.
24	25	Sterility, 3 years.	Uterus normal; both tubes appear closed at the fimbriae, 48-hour film shows oil in the peritoneal cavity Film 2 weeks later showed same amount oil in peritoneal cavity.	Became pregnant soon after.
25	28	Sterility, 5 years.	Uterus normal; Right tube patent, left closed at the fimbria.	No pregnancies.

REFERENCES

1. Lajoie, Leon G.: Utero-salpingography. Canadian Med. Assn. Journal, 44: 555 (June 1941.

2. McClellan, R. H., Titus, P., Tafel, R. E., and Lory, E. C.: A New Non-Irritant Opaque Medium for Uterosalpingography. Am. J. Obstetrics and Gynecology. 37: 495 (March) 1939.

3. Hellman, A. M., Jonas, J. Q. and Rosen, J. A.: Uterosalpingography with Skiodan-Acacia. American Journal Obstetrics and Gynecology. 37: 107 (January) 1939.

4. Rubin, I. C. and Morse, A. H.: The Comparative Value of Radiopaque Substances in Utero-salpingography. American Journal of Roentgenology. 41: 527 (April) 1939.

5. Hudgins, A. P.: Special Uterine Canula for Uterosalpingography Southern Medical Assn., Scientific Exhibit. St. Louis, Mo. (November) 1944.

6. Pfahler, G. E. and Vastine, J. H.: X-rays in Gynecology. The Cyclopedia of Medicine and Surgery. F. Davis and Company. 13: 392. 1942.

Practical Points in the Differential Diagnosis and Treatment of Appendicitis*

S. H. DAVIS, M. D.
Bruce, Miss.

THE DIAGNOSIS of appendicitis is at times one of the most difficult of all diagnoses to make. Of course the typical acute case is diagnosed without difficulty. Every physician is familiar with the diagnostic constellation of generalized abdominal pain shifting to the lower quadrant, with nausea, vomiting, point tenderness, muscle rigidity, moderate elevation of pulse rate and temperature, and increased leukocyte count, chiefly in the polymorphonuclear neutrophiles. However, we often forget that all of these things are present in a few cases, a few of them are present in the majority of cases, and virtually none of them are present in quite an appreciable number of cases. It is the last series of cases that tax our diagnostic acumen to the limit.

In a differential physical examination of the suspected acute appendix, one should begin with palpation of the lower left quadrant and working around the abdomen counterclockwise until the lower right quadrant is reached, using first gentle and then deeper pressure. In a typical case, the tenderness will increase as one approaches McBurney's point in the lower right quadrant. Pressure over this area usually causes the patient to squirm and exclaim with pain. In cases where there is an atypical position of the appendix, the maximum point of tenderness may be at the outer side of the right loin in the case of a retrocecal appendix, or in the pelvis if it hangs over the pelvic brim. In these cases rectal or vaginal examinations are invaluable in revealing the tender area, while in cases where the appendix points medially and to the back of the abdomen and lies under the mesentery of the ileum, deep palpation is necessary to elicit the typical tender area. Flexing the right thigh on the abdomen while extending the lower leg, is a valuable maneuver where a deep seated appendix may be lying near the psoas muscle. Rebound tenderness and hyperesthesia of the skin are valuable signs. Muscular rigidity in the lower right quadrant will be present, especially if there is any amount of periappendicitis. Perforation is accompanied by a more generous extension of tenderness over the lower abdomen and there is a definite decrease in pain for a time until peritonitis sets in, when there is increasing distention and pain with a recurrence of vomiting. An appendiceal abscess gives a sensation of rather firm solid resistance on palpation and is accompanied by a longer history. The urine should show no pus cells; however, in a retrocecal appendix lying close to the ureter, one often finds a relative pyuria.

In the acute case one is often called upon to rule out one or more of the following diseases:

1. In salpingitis one may have a history of Neisserian infection. The tenderness is lower down, both sides of the lower abdomen are tender and on vaginal examination there is far more tenderness on moving the cervix. Vaginal discharge and the gram-negative diplococci are usually present in the secretion of the cervix. The leukocyte count is usually higher in salpingitis. The sedimentation time may often be of great value in differentiating the conditions. It has been found that the sedimentation time for appendicitis is prolonged in the early hours and is very much shortened as time passes. The opposite is true in salpingitis. Early the time is short and is much prolonged as the disease progresses.

2. In ectopic pregnancy there is usually a history of a missed period and spotting. Palpation discloses a mass and extreme tenderness on vaginal examination. Pallor and quickened pulse are additional valuable signs in ruptured cases.

3. Intestinal obstruction has more abrupt onset, more frequent vomiting with absence of stools and flatus from the rectum. The abdominal tenderness is more generalized and the pain more severe.

4. Gallstone colic is accompanied by a history of dyspepsia, gas and possibly jaundice. The pain and tenderness are in the upper abdomen and referred to the shoulder. The vomiting is more frequent.

5. In perforated ulcer one may find a typical ulcer history. The onset is more sudden, the

---

*This paper, prepared a few years ago, was submitted because of its unusual timely content.

rigidity of the entire abdomen is board-like and the pain steady. Also there is decreased liver dullness and a gas bubble below the diaphragm.

6. Renal colic is associated with frequency of urination and possibly blood or pus in the urine. The pain radiates down to the genital organs or thigh and a flat plate of kidney, ureters and bladder are apt to show a shadow in the renal pelvic or along the course of the ureter.

7. Ovarian lesion, such as a twisted ovarian cyst, can usually be detected by vaginal examinations, while a ruptured lutein cyst may be difficult to rule out, except when there are signs of hemorrhage present, when it stimulates the picture of ruptured ectopic pregnancy.

8. Pyelitis, hydronephrosis and renal tumors are eliminated by urine examination and pyelography, as well as palpation.

9. A spastic bowel gives a fairly typical history of generalized colicky pain over a long period of time, with frequent bowel movement or passage of gas by rectum.

10. Mesenteric thrombosis is characterized by a sudden onset of most severe pain. The temperature may be high and blood is vomited later. The tenderness is more generalized.

11. Acute infectious diseases such as pneumonia in children, measles, scarlet fever, and influenza may be ruled out by history of exposure, as well as the leukocyte count.

12. Acute pancreatitis is characterized by a rapid onset, extremely rapid pulse, frequent vomiting and collapse. The tenderness is higher in the abdomen than in a case of appendicitis.

13. Tabes dorsalis gives the typical neurologic findings of frozen pupils, absence of knee jerks and possible history of primary lesions with a genital scar.

14. Inflammation of Merckel's diverticulum it not usually diagnosed until after operation.

A McBurney incision should always be made and the appendix always removed if possible. The McBurney incision gives ample access in most cases of appendicitis and can be enlarged if necessary. Postoperative hernia of the wound is much less likely to occur in the McBurney incision. It is particularly adaptable in the perforated case because in such cases the wound should not be closed. One or two soft rubber tubes or cigarette drains should be inserted and the peritoneum sutured lightly. The rest of the wound is left open and packed with gauze, soaked in mercurochrome, petroleum or something similar.

In the perforated cases physiological rest of the gastro-intestinal tract is effected by limiting the oral intake and avoiding proctoclysis. In all cases of spreading peritonitis or where a perforation or abscess exists, essential water and electrolytes with some calories are given intravenously by five per cent dextrose in saline or Ringer's solution. If there is distention, the stomach should be decompressed by inserting a nasal tube to the stomach or duodenum and if the distention is great continuous suction should be applied.

Gentle handling of the intestines with suction instead of gauze packs is important in preventing spread or dissemination of the peritonitis. Simple ligation, severing and disinfecting of the stump is all that is necessary. Inversion is a waste of time.

In some prolonged cases, transfusions are helpful or life-saving. Pasty edema with anemia as a result of lack of intake of protein foods, is the condition seen when transfusions are valuable.

BIBLIOGRAPHY

1. Leitch, Neil: The Diagnosis and Treatment of Acute Appendicitis and its complications, *Minnesota Medicine,* 22:735 (November) 1939.
2. Burger, Thomas C.: Problems in the Diagnosis of Acute Appendicitis, *California and Western Medicine,* 50:7 (January) 1939.
3. Reid, Mont R. and Montanus, William P.: Appendicitis; An Analysis of 1,153 Cases at the Cincinnati General Hospital, *Journal of the American Medical Association,* 114:1307 (April 6), 1940.
4. Smith, C. T., Harper, Thelma and Watson, Anna: Sedimentation Time as an Aid in Differentiating Acute Appendicitis and Acute Salpingitis. *The American Journal of the Medical Sciences,* 189:-383 (March) 1935.
5. Sprague, Edward W., Schaff, Royal A., MacArthur. Clymont Hawkes, Stuart Z., Hantman Harold and Haley, Paul W.: A Study of Appendicitis. An Analysis of 1,463 Consecutive Cases. *Surgery, Gynecology and Obstetrics,* 66:166 (February 1), 1938.
6. de Bruine Ploos Amsrel, J. J.: Pneumonia or Appendicitis, *Ztschr. f. arztl. Fortbild* 19:393, 1922.
7. Ray, Bronson S.: A Study of Appendicitis. 1500 Cases at the New York Hospital, *New York State Journal of Medicine,* 38:412 (March 15), 1938.
8. Collins, Donald C.: The Treatment of Complicated Acute Appendicitis, With Particular Reference to the Ochsner Method, *Medical Record,* 150:127 (August 16), 1939.
9. Horsley, J. Shelton, Horsely, John S., Jr. and Horsely, Guy W.: Appendicitis: Newer Methods of Treatment, *Journal of the American Medical Association,* 113:1288 (September 30), 1939.
10. Orr, Thomas G.: The Treatment of Acute Appendicitis, *Southwestern Medicine,* 21:433 (December) 1937.
11. Morse, Louis J. and Rader, Milton J.: Acute Appendicitis. A Twenty-Year Clinical Survey, *Annals*

of *Surgery*, 111:213 (February) 1940.
12. Manzade, Derwisch M.: Differential Diagnosis of Appendicitis and Follicle or Corpus Luteum Hemorrhage, *Weiner Klinische Wochenschrift*, 49.1393 (November 13) and 1428 (November 20) 1936.
13. Manzade, M. D.: Differential Diagnosis of Appendicitis and Hemorrhages from the Follicle and from the Corpus Luteum, *Wien Klin Wchnschr.*, 49:1392, (November 13) 1428 (November 20) 1936.
14. Foster, Allyn King, Jr.: Mesenteric Lymphadenitis. Report of Twenty-four Cases with Tabulations Showing Relation to Appendicitis and Other Diseases; Need of Surgery, 38:131 (January) 1939.
15. Nobel, Edmund: Appendicitis Peritonitis, *Weiner Klinische Wochenschrift*, 48:596 (May10) 1935.

Should We Have a Medical School?

EUGENE R. NOBLES, M.D.
Rosedale, Miss.

We have hoped that some day Mississippi would have a medical school. This present urge, which began during the last campaign for governor, I assumed like most of you, to be political propaganda designed to get votes. It represents progress, it involves building, education, and medical service—these three subjects being popular with the voters. A bill was offered in the legislature for the purpose of establishing a medical school. It was defeated, first, because of the known difficulties at that time in securing priorities for constructing and equipping buildings of this character; and second, because of the contention that this necessary delay would provide ample time for the legislature to ascertain and assemble essential facts in regard to Mississippi's needs before launching a program of such magnitude. This was agreed upon, and a nationally known figure in the field of medical education was employed to make the survey. This survey has been completed and made a matter of public record.

The next time that I was impressed with the importance of the subject was at a meeting of the State Hospital Association the following May. At this meeting in making a report to the Association on the hospitalization of the indigent, I stated among other things that the time has come when because of paved roads and increasing hospital facilities we are to have fewer, but more efficient, doctors. In the discussion of this report, one of the leaders in the medical school movement talked at some length upon the need for a medical school. His talk had a certain amount of logic and was fairly convincing at that time. The president, a resident of Jackson, was quite enthusiastic. The Hospital Association, later in the proceedings went on record as approving the plan for a medical school; and the next day, with like speed, the Medical Association did the same thing with almost no discussion.

This legislature will have another bill before it when it convenes in January; and since almost all the newspaper reports have been favorable, I think it would be worth your time to present to you, as an observer, an analysis of the situation as I see it.

I believe that before we begin a program of such far-reaching importance as the future medical needs of the people of this state, we should be reasonably sure that the time is favorable and that we will accomplish our aim with the money we propose to spend.

We all know that the supply of doctors in Mississippi is diminishing and has been for years, because new ones are not locating in the state fast enough to replace the losses incident to old age, disabilities and death. There are some who propose to meet this demand by establishing a medical school in Jackson. There are others who believe it can best be done by enlarging our present hospital system, and still others who advocate a combination of the two methods.

The original advocates of the medical school plan embrace it under the benighted belief that when a product becomes scarce and poorly distributed, a factory should be started. A good many have still not been convinced that young graduates in medicine are not just so much merchandise on the market.

There is another group, continually increasing, who are employees, directly or indirectly of the state, who are advocating it purely as a political measure on this basis: You help me with my project and I will help you with yours. I have also observed that among the most enthusiastic advocates of the medical school plan are the very ones who steadily, through the years, opposed the abolishing of the five state operated hospitals which are known to be a discredit to the state.

To those who do not belong to any of the above groups, but who really think a medical school will solve the problem, I would like to quote a recent statement from the secretary of the Council on Medical Education and Hospitals: "I feel that there is no justification for the establishment of a medical school in any state on the grounds that the state lacks a sufficient number of physicians. There are other causes for the lack of physicians which are primarily economic in origin. This includes not only the income which can be earned by a physician in the state concerned or in a rural community, but also such general economic factors as the quality of schools, churches, and homes in the area involved. Even though a medical school should be established in a state with a deficiency of physicians, there is no assurance whatsoever that the graduates will practice in needy areas since presumably the establishment of the school will in itself not correct the other factors which I have mentioned." Other national figures in the field of medical education have made similar statements.

It takes more than money and enthusiasm to establish and maintain a class A medical school. There are only FOUR cities in the United States the size of Jackson in which are located medical schools. In no one of these cities is the clinical material needed for teaching purposes provided. Sufficient acute cases to meet the teaching requirements have to be transported from great distances at considerable cost. Medical education is by far the most expensive form of professional training, requiring an initial outlay, and subsequent annual budgets in the early years, totaling millions of dollars, and not tens or hundreds of thousands.

It will cost the state of Mississippi five million dollars to build a medical school and a hospital of sufficient size to meet its clinical requirements, and a million dollars a year to operate it. This last amount is broken down approximately as follows: $350,000 for the school itself, $500,000 for the hospital, $100,000 for the out-patient department, and at least $50,000 for research. These figures of course may vary from year to year, but mostly upward rather than downward. This is $180,000 more than is spent at present on all of the other state educational institutions of which there are seven, or four times the present annual cost of maintaining the University of Mississippi.

The growing scarcity of doctors in the rural sections is neither unique nor peculiar to our state. The trend throughout the country for the past twenty-five years has been from the rural sections to the urban centers. This trend began with the improved standards of medical education initiated by the Council on Medical Education and Hospitals, when between 1915 and 1920, 75 out of a total of 166 medical schools were forced out of business by publicizing their low teaching standards. This campaign did not lower the number of medical graduates per year except for the first few succeeding years, and it definitely improved their quality.

The modern doctor requires hospital facilities, and he will not locate where these are denied him. There is actually not much relation between the presence or absence of a medical school in a state and the number of physicians to be found there. This situation is essentially the same in states with two medical schools, and Florida, with no medical school, has 108 physicians to 100,000 population as against Mississippi with 61. There are twelve states without even a two-year medical school that rank far higher than Mississippi in the proportion of physicians to population.

I wish to contend to you that any sensible program of construction contemplates building from the ground up rather than from the roof down. I believe that we are about to be rushed into a costly program of medical education for which we will not be ready for many years.

The problem of modern medical care in our state is not a simple one when we contemplate that ultimately all the people are to receive the benefits at a price that they can afford. It will take many years to develop such a program, for there are a good many deficiencies and many reasons why these deficiencies exist. Fundamentally they develop from the fact that this is a rural state, with no large cities; our annual per capita income is the lowest in the nation, and one-half of our population is Negroes. These problems are **essentially** economic, rural, Negro. These are the basic reasons for the doctor shortage, not the lack of a medical school. For example, if the Negro population is left out of the count, Mississippi takes a high rating in the physician-population ratio with 141 physicians to 100,000 population as against the national average of 125. There are a million Negroes in Mississippi and only 52 Negro doctors. This large Negro population has also placed Mississippi at the bottom of the list of states, educationally, economically and in public health requirements, and a natural question is, What are we going to do about that?

The first corrective step in this program of medical care should be the further development of our community hospitals, primarily by more liberal support from the state, and by encouraging public ownership by municipalities, counties, or hospital districts comprising even several counties or parts of counties. Enabling acts have already been passed by the legislature. Tunica, Coahoma and Quitman counties are planning through bond issues to build a fine hundred-bed hospital in Clarksdale in the immediate future. These counties are recognizing the trend and are preparing for it; others will follow very soon, without a doubt. The poorer and more remote areas must receive assistance and grants from the state and federal government. Although the privately owned hospital has served a most useful purpose, (as a matter of fact, I think a monument should be erected to the brave men who pioneered in this field) its day is rapidly passing, just as the privately owned school did twenty-five years ago. Hospital construction and maintenance is a public responsibility; and, in the foreseeable future, the kind of medical care any community receives will depend upon the hospital facilities it offers. These hospitals will furnish a nucleus around which will develop medical centers that will determine the quality of their medical talent, for young men will be attracted to them as the demand grows for their service. Small cities of less than 5,000 population without hospital facilities will be without medical service, as soon as the old doctors die. As far as bringing modern medicine to the crossroads, that is a pure hallucination. In the very near future the crossroads will have to be transported to the doctor.

As Exhibit A in this contention let us present the richest rural county in the world, fifth from the top in taxable wealth in Mississippi, our own Bolivar. Within the last twenty-five years—a quarter of a century—only eight doctors have located here directly from their internships, with the view of establishing practice. All of these have left the county except three who are located in Cleveland, where good hospital facilities are being provided. Our sister county, Sunflower, eighth from the top in taxable wealth, has had a similar experience. Her young doctors are concentrated at Indianola where the hospital facilities are. I think it worthy of comment to note here that the greatest single step our state ever made toward providing medical care for the people was in 1936 when the legislature passed the per capita bill. This fund went a long way toward relieving the small hospitals of their indigent load, it restored confidence to them, and greatly improved their efficiency. It is true that they have made more progress during the nine years this fund has been available than all the other previous years of their existence. It was directly responsible for the construction of the hospital here in Cleveland, in Indianola, in Rosedale, and in other places in the state. It rejuvenated many more. This program should be stepped up by encouraging public ownership of small hospitals and by increasing the support given them by the state. They are the very foundation, the very grass roots, of any plan for state-wide medical service. Most of the privately owned hospitals will, in a few years, be on the market as the present owners pass on. Young doctors have neither the disposition nor the money to invest in them.

Along with the development of the community hospital, the legislature, after first abandoning the present five state operated hospitals, should appropriate funds to be matched with federal funds wherever possible and build four regional hospitals with a capacity of not less than 100 beds—one in each supreme court district and one in the Delta. These hospitals would be staffed by local physicians as far as possible, open to all reputable physicians, meeting all the requirements for internship and residences, forever removed from politics, where all classes of people can be served, the rich, the poor, and the indigent.

It is a mistake for the state to encourage pauperization of its citizens and deny to any of them the advantages which would accrue from a properly managed, properly supported state institution, for every patient who is admitted to a hospital makes a contribution toward the improvement of medical service that all the people in that town or city or community receive. These district hospitals would serve as reference hospitals for certain special services and special cases originating in the local hospitals in their territory. Their functional relationship with the smaller hospitals would grow and develop with the increase in service and population so that finally in the not too distant future the one which naturally would be located at Jackson would undoubtedly develop clinical material for an acceptable teaching institution, for it is a growing city.

They should be locally controlled, that is, by districts, each being a separate entity in this respect. They should be maintained by local funds from city and county and any needed assistance from the state-aid fund, plus fees received from patients. These hospitals are to be an integral part of the districts they serve, open to all citizens alike who as patients would have the right to choose their own physician. They would thus stimulate civic pride because of the local support, local control and would be the best answer I know to threatened socialized or federalized medicine.

Second, in this plan, there should be encouraged and developed right along with the development of the hospital system, a means to educate the people to the value and need of good medical care, and how and when to use hospital service. This should be done through the various avenues of publicity available in the respective communities. A lot of people still believe that a hospital is the place where one goes to die, and they are afraid to patronize it. This educational campaign should be well planned, well publicized, and constantly functioning to be properly effective.

Third, a better and more convenient method of paying for this service must be devised such as further development of pre-payment plans, group hospital service plans, the Blue Cross, the Blue Shield, and various types of regional or local plans should be encouraged and promoted.

The Negroes, through fraternal organizations, have developed a pre-payment plan for hospital service. They have hospitals at Yazoo City and Mound Bayou, both of which are doing satisfactory work. Such programs should receive our full endorsement and support. The state-aid hospitalization fund should be continued with provisions made for partial payments whenever the patient can afford it.

I repeat: The state should not encourage pauperization of its citizens. People should be required to pay according to their means.

I have presented to you the problem of medical care in Mississippi as primarily economical, rural, and Negro. I have tried to show to you with enough facts to be reasonably convincing, that the need now is 1) for increased hospital facilities, 2) a sustained educational program and 3) for the development of pre-payment hospital service plans, together with complete or partial state support for the indigent, as required.

With this program which I have briefly outlined well on its way to realization, the medical personnel will naturally follow, as the day follows the night; but it will take years for it to be accomplished under state guidance. However, necessity will speed the day. Meanwhile, to meet the immediate shortage of doctors the state should subsidize about 25 scholarships and make them available to qualified applicants on condition that they return to the state to practice for a predetermined number of years.

One advocate of the medical school plan warns that it will take an Act of Congress to get a scholarship out of a medical school. But remember, one-third of the medical students in the country are regularly non-residents of the state where they are attending school, and I am in a position to know that just four schools, all in neighboring states, have been contacted, and three looked with favor upon the scholarship plan.

The current cost to the taxpayers of the state for each medical student graduated will be $5,000 assuming that the tuition fee averages $250 a year for residents. I submit to you that when we return to normal times and normal thinking, when the flow of oil has diminished to a trickle - it always does - the resources of this state will not afford both of these programs; the medical school and the hospitalization system. Which do you think will accomplish the most good for the people? As a matter of fact, how is an accredited medical school to function satisfactorily without dependable outlets for internships and residences? Much has been said about peddling our second-year students, but nothing has been mentioned about peddling the graduates. To these we will have an even greater obligation. If we had fifty, or even twenty-five, high grade internships available within the state, we doubtless would have no shortage of doctors; for it is a common observation that where a young graduate serves his internship has a much greater influence on his selection of a location than where he takes his degree in medicine. Our boys will leave the state to serve their internships. Will they return? Experience in other states gives a negative answer. High grade internships are prize possessions for young graduates in medicine and they are not easy to obtain.

Alabama, with fifty prospective graduates, has fifty-one approved internships. Arkansas graduates between fifty and sixty each year and has twenty-five internships. Louisiana with 225 graduates has 250 internships and Tennessee 166 white with 122 white internships. The overall picture, therefore, in our neighbor state is 502 graduates with 448 internships; obviously there will be no surplus available to us from these sources.

A graduate in medicine knows that an internship has more to do with developing his talent than his training in school. Where will these boys be placed? Will we not be petitioners for favors from many hospitals, instead of a few medical schools? What will we have to offer in the way of reciprocity? These are just a few of the questions that ultimately will have to be answered. I assure you there are many more, but the fundamental fact remains that if we wish to attract medical graduates to the state and expect to hold those who may take their training within the state, high grade internship and residences must first be provided.

I have noticed what a splendid background and an irresistible temptation this program of medical education has offered to the well-wishers, do-gooders and bleeding hearts in appealing to the emotions of our people and they have done beautifully as some of the press reports indicate, but the cold, sound, economic fact is that we have got the cart before the horse by advocating the construction of a 500-bed hospital and medical school in Jackson at a cost of five million dollars, that will cost a million dollars a year to keep up, which will be a great measure dependent for clinical material and outlets for internships and residences upon a well developed hospital system in the state that does not even exist. In these post-war years, during which time we are certain to see burdensome taxation and diminished incomes, extravagant expenditures both by the states and federal government, must by necessity come to an end. When they do, in our state, there is a real danger that the proposed medical school may become a memorial to our shortsightedness.

DR. HENDERSON PRESIDENT-ELECT OF SOUTHERN

Dr. M. Y. Dabney, Birmingham, Ala., who was named president-elect a year ago in accordance with the Southern Medical Association's custom of electing its presidents a year in advance, was installed as president, succeeding Dr. Mastin.

After receiving a nominating report from its council, the association unanimously elected Dr. Elmer L. Henderson, Louisville, Ky., as the new president-elect. Other officers chosen without opposition were Dr. Lucian A. LeDoux, New Orleans, first vice-president, and Dr. Oscar W. Frickman, Newport, Ky., second vice-president.

Dr. Neil Moore, St. Louis, was named chairman of the executive committee and Dr. W. Raymond McKenzie, Baltimore, chairman of the council.

The association's Research Medal, awarded ten times since 1913 for outstanding work in medical research, was presented to Dr. Tinsley R. Harrison, professor of medicine and faculty dean of Southwestern Foundation Medical College, Dallas, Tex. The award was made in recognition of Dr. Harrison's contributions in the functional aspects of heart disease and problems arising from failure of circulation.

A Past-President's Medal was awarded posthumously to Dr.Edgar G. Ballenger, Atlanta, Ga., who died during his term as president in the last year, and a similar medal was presented to Dr. Mastin, who succeeded him.

Other speakers at the session were Dr. Frickman; the Rev. William Dern, pastor of St. Paul Episcopal Church, Newport, who delivered the invocation; Dr. Oscar O. Miller, Louisville, who welcomed the physicians on behalf of the Kentucky State Medical Association; Dr. J. Warren White, Greenville, S. C., and Dr. Roger I. Lee, Boston, president-elect of the American Medical Association.

The Mississippi Doctor

Published monthly at Booneville, Mississippi
Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

OFFICIAL ORGAN OF
Mid-South Postgraduate Medical Assembly
Mississippi State Medical Association

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ... . Assistant Editor

David E. Guyton, Blue Mountain College ...... Poet

Mid-South Postgraduate Medical Assembly
OFFICERS:
C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.
A. F. Cooper .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

EDITORS:
C. R. Crutchfield, M. D. E. M. Holder, M.D.
H. King Wade, M. D. F. M. Acree, M.D.

Mississippi State Medical Association
EDITOR
Lawrence W. Long, M.D.
ASSOCIATE EDITORS
J. G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

WHY NOT IN MISSISSIPPI?

I have read the article in your issue of October 23, under the heading of "Talk of the Nation" on the subject of "Medical Education" condensed from the Richmond *Times-Register.*

It appears that this newspaper was much perturbed in learning that Mississippi is contemplating the establishment of medical facilities somewhere within the state which will supplement the two-year medical course now offered at the University of Mississippi. The editor then suggests that the policy of Virginia be followed and states there is no sound reason why arrangements cannot be made with Tulane, Louisiana State University, or Vanderbilt to take the Mississippi students after they have completed their first two years. However, in order for Tulane or LSU to accept all the students from the school of our sister state, it would probably mean they would be compelled to lessen the number in the freshmen and sophomore classes and increase the number in the junior and senior classes. This, no doubt, would work a hardship on any medical school, and does not sound logical. Furthermore, as stated in a recent editorial in the Mississippi medical journal, "Mississippi is financially able to own and operate a medical school if it wants it."

Everyone will agree that Virginia is to be complimented on the brotherly love it is exhibiting for a state so far away. But, from all reports it appears that the article appearing in the Richmond paper is prompted by an adverse report on Mississippi's proposed four-year medical college and hospital center by Dr. W. T. Sanger, president of the Medical College of Virginia. Ex-Governor Hugh White of Columbia scathingly denounced this report before the Jackson Exchange Club and to heads of fourteen state-wide organizations declaring, "I've read this report ten times and the more I read it the more disgusted I get."

The School of Medicine at Augusta, Georgia, organized in 1828, which is part of the University of Georgia, has been very successful. The University of Texas has operated a medical school at Galveston since 1891. The population there is limited, making the clinical material likewise. The medical college of the state of South Carolina at Charleston graduated its first class in 1825. All are four-year schools.

Therefore, with the first two years provided at Oxford, it does sound feasible for the state of Mississippi to establish a medical school in one of its large cities to take care of third- and fourth-year students.

According to the 1940 census, Jackson, Mississippi, had a population of 62,107—Augusta 65,919—Galveston, 60,862, and Charleston 71,275. So, by comparison it appears that Jackson would be the logical place for a two-year school.

The medical schools of the United States are overcrowded. Some schools have four times as many applicants as the number they are able to accept. So many young men with the ambition to study medicine are turned away owing to the lack of facilities.

Quoting from the editorial page of the *Mississippi Doctor* (September, 1945) this may be a thought to leave with the *Times-Register*:

"The four-year medical school, the medical school hospital, and the state hospital system are as the driver, the vehicle and the motive power of a planter. It takes all three to get the job done. The four-year school is the driver, the doctors, nurses and interns in and out of training, constitute the power, and the hospital system with its equipment is the vehicle in which the service is delivered. It seems now that it is time for Mississippi to own and till her lands and quit working on the shares."

—*N. R. Shubert*

We deeply appreciate the above from Mr. N. R. Shubert in a recent issue of the New Orleans *Item*. Mr. Shubert is a well-informed and a fair-minded man. It seems very strange that Virginia with a population just a bit larger than ours and with two medical schools should be so positive in saying that we should not have a four-year school. We have the funds for a four-year school, but evenso it is the medical spirit that really makes the school. The big medical schools have overshot the mark in medical education. Their graduates do not know how to practice in the small town and rural community and they are not inspired with any missionary spirit to do so. We need at least one medical school in the United States that can give an adequate, practicable course in everyday diseases that ninety per cent of our people have died of and will continue to die of, and imbue the students in this school with the ideal of a professional mind, a medical soul, and a missionary heart.

As doubters we have already wandered in the wilderness for forty-two years and it is now high time that we go forward and possess the promised land in medical service. It is rich unto harvest and a land offering wonderful opportunities.

The Southern Medical Association meeting at Cincinnati was a fine success. It is hard to say how large the attendance would have been had the hotel accomodations been unlimited. Dr. Mastin of Saint Louis, a great grandson of Dr. Ephriam McDowell, presided. He became president on the death of Dr. Ballinger of Atlanta. Dr. E. L. Henderson of Louisville, Kentucky, was elected president-elect, and Dr. M. Y. Dabney of Birmingham was installed as president. Drs. W. W. Crawford, Felix J. Underwood, and Harvey Garrison gave Mississippi a hundred per cent attendance of past-presidents of the Southern in point of service, Dr. W. S. Leathers, dean emeritus of Vanderbilt, also served as president from Mississippi. Dr. J. P. Culpepper, councilor for Mississippi, was advanced to a place on the executive committee at the meeting.

It is remarkable that the Southern went through the duration without missing a meeting. It kept medical information liquid and flowing to the doctors and in turn to the people. This credit is largely due to the able secretary-manager of the Southern, Mr. C. P. Loranz.

The place of the next meeting is not yet decided, but it will probably go to the grand old Southern city of New Orleans.

We deeply regret the going of Doctor F. F. Young, Fenwick Sanitarium, Covington, La. It was not our pleasure to meet him, but he was among our first advertisers in the *Mississippi Doctor,* and through the years our business relations were most cordial. He was generous, appreciative, and prompt, a kindly dependable friend. We are sure that the sons will carry on in a fine way. He seems to have endowed them with all the fine traits of a worthy father.

NOT DEMOCRACY

The following protest from overseas medical personnel has been received by deans of medical colleges, secretaries of state medical associations, individual leaders and periodicals in the profession. Its distribution represents an effort to arouse the profession to the injustices of the point system, and the dangers which threaten when organized medicine at home becomes lethargic toward the lot of men kept overseas where their services are no longer needed.

A similar declaration from Navy men on this side follows. Situations such as this should not continue unprotested.

France,
9 November 1945

There are existing at this time in the European Theatre of Operations, conditions which are the seedlings for planned changes in the future practice of medicne. They have been present all during the actual war and were the stimulus for many thousands of rightful "gripes" by the doctors in the service. Now that the war is over these injustices are still present, and it is high time that they be aired, so as to preserve our present standards of medical practice and thus continue to insure the American people the highest degree of health.

We are writing this letter to you to acquaint you with these conditions which are planned adjuncts to the collaring and slow choking of the American medical profession.

1. Much has already been said and written concerning the surplus of doctors in service, and the hoarding of this surplus by the military. This unnecessary disproportion was present, but tolerated, during the actual time of combat. At that time there was one doctor per two hundred soldiers. From the available casualty figures published by the Army and Navy, during the entire European and Pacific war, there was available one doctor for every ten soldiers injured. Compare this figure with the civilian figure where one doctor serves one thousand people of all ages and of both sexes. Now with the war over, combat casualties non-existing, the redeployment of the troops "excluding medical officers," this disproportion grows even more alarming and ridiculous. We find ourselves with no work to do sitting idly here, simply political prisoners. Is this not a sufficient contradiction to the plea of "necessary" to arouse in us a suspicion and fear of a sinister plot of the greedy social planners? Do we read socialized medicine in the offing? We are sure we do. We don't like it. We don't want it.

2. A second inciting factor of the present medical situation is the policy of the Army to refrain from inducting into the service those young men who were given a medical and dental education at the expense of the Government. These young men are not being sent overseas as replacement, while doctors with 15 to 24 months overseas service or two to three years total service are being kept here, many to serve in the Army of Occupation. This contradiction to logic, this breech of everything that is right, just, and holy is leaving a mark of bitterness in us doctors that even time will not erase. We ask, "Is the Army keeping the older men, those with long-overseas service, away from the States to curry favor with the younger men in the hope and play of entwining them in their scheme of socialization?

3. Along the same line, doctors at home, who have never left the States are being discharged with fewer points than many doctors have who are overseas. They are being discharged, and we can't even get home. Again we ask ourselves a question, "It this justice, or are we making a mistake by expecting justice?"

The results of these injustices is becoming very evident to us who are witnessing these experiences. The doctor has no work, he is loafing, he is losing his initiative, his desire for and interest in medicine. He is developing a mental attitude which if it continues to be nourished by instances as above, will solidify into a bloc, not only willing to accept, but encouraging socialized medicine. This is not an idle dream, this is now an everyday conversation and admission, spoken no longer with hesitancy, nor with shame, and with less and less regrets. The future is not rosy. Is it the desire of the representative leaders of our profession to see as a result of this neglect, an embittered bloc of medical people arise? A bloc so frustrated that the advent of socialized medicine would be welcome refuge. We think not, and we hope not. Unless something is done immediately, these grave fears will come to pass.

In an effort to avoid this we offer the following suggestions:

1. Let there be adequate medical personnel for American soldiers in each theatre. No more, no less.

2. Get the surplus of those overseas home immediately. There is an overwhelming surplus. Get those with long overseas service home now. They can't take much more now.

3. Let the A. S. T. P. and V-12 doctors earn their government education by a tour of duty overseas thereby allowing the poor, forgotten, disillusioned, lethargic doctor a chance to return home because he is now filled with ennui such that he doesn't know if he is coming or going!

4. The American Medical Association should pursue its function of protecting the rights of its members. Let us not again see the Journal

repeat, without criticism, the exorbitant demands of the Army. It nauseates us who know the true state of affairs, and is an insult to our intelligence.

5. We think too that after the cessation of hostilities there ought to be at least a degree of medical autonomy. A representative committee of the profession should have the power to decide how many doctors for the military and how many for the civilian population.

The future of individualistic American medicine is in the balance. You can tip the scales in the right direction. But it must be done now.

U. S. Naval Amphibious Training Base
Fort Pierce, Florida

Editor
The Mississippi Doctor
Booneville, Miss.

Dear Sir:

I note that the Army is automatically discharging medical officers who are over 48 years of age, irrespective of how many "points" they have.

The Navy has no such provisions for the discharge of their medical officers. This is manifestly unfair. I wonder if you will use your influence to get the Navy to adopt the same over-age rule, and in 1945?

Trusting to hear from you soon.

Yours very truly,
James E. Fisher

News and Comment

POSTGRADUATE COURSES

The Tulane School of Medicine, Department of Graduate Medicine, New Orleans, Louisiana, will again offer short postgraduate review courses during the coming session. The dates for these will be:

Pediatrics—December 10-14, 1945.
Obstetrics and Gynecology—January 14-18, 1946.

A number of scholarships for general practitioners have been arranged through the Mississippi State Board of Health covering tuition ($25), transportation, and a daily stipend of $6.00 to cover room and meals.

Mississippi physicians who would like to take advantage of these courses are invited to apply to Dr. Felix J. Underwood, executive officer, Mississippi State Board of Health, at the earliest possible date.

ANNOUNCEMENT

Dr. Fred M. Sandifer, Jr., formerly Medical Corps, Army United States, announces the reopening of his office 110 E. Market Street, Greenwood, Mississippi. Fellow American College of Surgeons, Diplomate of the American Board of Surgery.

GERIATRICS

The new bi-monthly medical journal, *Geriatrics,* devoted to research and clinical reports on the processes and the diseases of the aged and aging, will appear in January, *Modern Medicine* Publication announces.

The editor is Dr. A. E. Hedback, who has been the editor of *Modern Medicine* since its inception. The editorial board serving with Dr. Hedback consists of a group of distinguished and medical authors and editors, specialists in the field of geriatrics.

RESOLUTION

Whereas, the facilities and appropriations at the Mississippi State Hospital at Whitfield are woefully inadequate to provide the bare necessities of life for the inmates, and;

Whereas, this institution is, and will continue to be, required to provide care for an ever increasing number of unfortunate citizens of the state that will have to be under state protection and care, therefore

Be It Resolved that we, the members of the Delta Medical Society, urgently recommend the approval of Dr. C. D. Mitchell's request for additional facilities and appropriations.

Whereas, the control of the management of the Mississippi State Hospital at Whitfield being under the changing state executive appointment and jurisdiction; and

Whereas, the term of office for the medical appointments is for 4 years only and such appointments are not conductive to the best interest of the medical standards or management of the institution, therefore

Be It Resolved that we, the members of the Delta Medical Society, recommend that the Mississippi State Hospital be placed under civil service guidance and protection; and the superintendent and other medical appointments remain in office for an indefinite length of time according to their abilities and qualifications.

Deaths

DR. S. S. CARUTHERS

Dr. S. S. Caruthers, former physician of Duck Hill, died Monday morning, November 12, at 4:00 o'clock at his home in California.

A memorial service honoring Dr. Caruthers was held in Duck Hill at 4:00 p. m. November 14, with Rev. A. W. Bailey, pastor of the Webb and Sumner churches, conducting.

DR. W. J. COLEMAN

Dr. William J. Coleman died at Baptist Hospital, Memphis, Tenn., Tuesday and was buried in Aberdeen, Miss.

Dr. Coleman, 61 years old, practiced in Aberdeen for more than 25 years, and retired 13 years ago because of ill health. He received his medical degree from Jefferson Medical College, Philadelphia. He is survived by his wife, Mrs. Bertha M. Coleman.

DR. CLYDE M. SPECK

Dr. Clyde M. Speck, physician and surgeon, died at the New Albany Hospital November 9 of complications following an appendectomy the preceding Sunday.

Services were held at the New Albany Presbyterian Church and conducted by Dr. J. P. Kirkland of Walnut, Miss., and Dr. J. R. Davis of New Albany.

Dr. Speck graduated from Vanderbilt University, and practiced in Blue Springs and New Albany. He helped found the New Albany Hospital, was a member of the Northeast Mississippi Medical Society, the Mississippi State Medical Association, and the Southern Medical Association, and the Mid-South Postgraduate Medical Assembly (past-president.)

He is survived by his wife, Mrs. Carrie Mayes Speck, one daughter, Carolyn Speck, three brothers, Scott H. Speck, L. E. Speck, and J. Doss Speck, all of Blue Springs.

DR. B. A. VOWELL

Following an illness of long duration, Dr. B. E. Vowell died at his home in Carthage, October 17.

He had been in declining health for many months. He was a native of Winston County, Mississippi, born in 1892. He took his medical course at University of Tennessee, graduating in 1912, and located the same year at Columbus for the practice of medicine. He later practiced his profession at Marydell, Edinburg and Carthage, having moved to Carthage five years ago.

In 1915 he was married to Miss Lillie Jordan, of Marydell, who survives him. He is also survived by one son, Vaughn, with the Seabees in the Pacific for a number of months and now stationed in Rhode Island, and three daughters, Mrs. Rupert Smith, Edinburg; Mrs. James Franks, Carthage, and Mrs. Mahlon Webb, University, Miss. He leaves eight grandchildren.

DR. H. S. GOODMAN

Dr. Henry S. Goodman, 71, prominent Delta physician, died at his home in Cary October 24, following an extended illness.

Until forced to retire due to ill health, he had practiced in Cary and vicinity for the past forty years. He was a graduate of Virginia School of Medicine.

Dr. Goodman was a member of the Goodman Memorial Methodist Church, a Shriner, a member of Issaquena-Sharkey-Warren Counties Medical Society and of the Mississippi State Medical Association.

He is survived by two daughters, Miss Ethel Louise Goodman, Cary, and Mrs. Henry Greer, Anguilla; one son, Dr. H. B. Goodman, Anguilla, and a brother, Commander Rex Goodman, U. S. Navy, New Orleans.

DR. W. A. WILLIAMSON

Dr. William Arthur Williamson, 75, who lived in Duffee, but was engaged in most of his medical practice in Meridian, was killed October 26, when struck by a Gulf, Mobile & Ohio freight engine in Duffee.

Dr. Williamson was born in Newton County, was a graduate of Memphis Medical College and moved back to Duffee. He was known for his many acts of charity and kindness. The doctor was a member of the Suqualena Masonic Lodge, and the Duffee Baptist Church.

He leaves his wife, Mrs. Belle Freeny Williamson; and Miss Tommye Williamson, Duffee; three sons, two daughters, Mrs. J. G. Byard, Oak Ridge, Tenn., Donald, Camden, Miss.; Charles D., Duffee and J. Sherrill Williamson, Tuscaloosa, Ala., and 11 grandchildren.

DR. A. W. DUMAS, SR.

Dr. A. W. Dumas, Sr., was born in Houma, Louisiana, Sept. 9, 1876. Early instruction was received at Houma Academy and Flint Medical College. He graduated from Illinois Medical College, which is now part of Loyola University, Chicago, Ill., in 1899, receiving the degree of Doctor of Medicine. He died in Natchez, Oct. 1.

He began the practice of medicine in Natchez, November 16, 1899, and spent his entire active life there. Dr. Dumas in his career had a very large practice and through the years built up a reputation of competence and kindliness.

A good example of this is his organization of the Poor Colored Children's Christmas Tree which for thirty years has enjoyed the support of the people of Natchez, and each year money is sent from all parts of the country by former residents who know of the joy that this endeavor brought into the homes of the poor of the community.

In 1940 Dr. Dumas was honored by being drafted into the presidency of the National Medical Association. In the same year, Campbell College conferred on him the degree of Doctor of Humanities.

In 1943 he was appointed a member of the Medical Advisory Committee, Children's Bureau, Department of Labor United States Government, in which capacity he served until his death. He is a member of the Omega Psi Phi Fraternity—Lamba Alpha Chapter, and Rose Hill Baptist Church.

Surviving Dr. Dumas are: his widow, the former Cornelia Marcella Harrison, and nine childen:
Cornelia Marcella Harrison, and nine children, twelve grandchildren; and a brother, Dr. Henry Dumas. Natchez.

FOR SALE: Physician's office equipment, instruments, books, microscope, blood pressure machine, etc. All in good condition. Mrs. S. F. Hill, Macon, Miss.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—**James G. Thompson, Jackson.**

Ear, Nose and Throat—**Edley Jones, Vicksburg.**

Obstetrics and Gynecology—**J. F. Lucas,** Greenwood.

Orthopedics—Thomas H. Blake, **Jackson.**

Public Health—**Felix J. Underwood, Jackson.**

Pediatrics—Harvey F. Garrison, **Jackson.**

Radiology and Roentgenology—**Karl O. Stingily,** Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, **Vicksburg.**

Urology—Temple Ainsworth, **Jackson.**

DERMATOLOGY

Archives of Dermathology and Syphilology, V. 51; N. 6; June, 1945. p. 405

Review of 2,144 Courses of Rapid Treatment for Early Syphilis.

E. W. Thomas and Gertrude Waxler, Am. J. Syph., Gonor. and Ven. Dis. 28:529; September, 1944.

The authors started the rapid treatment of early syphilis at Bellevue Hospital in December 1939. The most effective method with mapharsen alone during a period of from five to ten days required a total dose of over one gm. When it was given in amounts which appreciably exceeded one mg. per kilogram of body weight on any one day the incidence of arsenical encephalopathy was more than one per cent. In the administration of 909 such courses of treatment each lasting from six to ten days, three deaths occurred. In a series of 1,046 courses of treatment, each consisting of daily injections of mapharsen in doses of about one mg. per kilogram of body weight and four fevers induced by typhoid vaccine during a ten-day period, there were only three cases of mild arsenical encephalopathy and no deaths. In a total of 2,144 courses of rapid treatment the incidence of encephalopathy was higher among men than among women. Results of quantitative serologic tests during and after the administration of rapid treatment suggest that reagin may be introduced for varying lengths of time after the spirochetes have been eradicated. In general, the longer a patient has had syphilis the longer it is before the serologic reaction for syphilis becomes negative. Of all the patients followed for six months or more after treatment, 80 per cent demonstrated results that were considered to be satisfactory. If the patients who were retreated are included 85.6 per cent had results that were considered to be satisfactory. The low incidence of positive spinal fluid findings from six months to four years after rapid treatment is encouraging. Neurorecurrences after rapid treatment have been fewer than after routine treatments. A few patients were treated according to a plan of therapy devised by Eagle, in which three injections of mapharsen were given each week during a period of from six to eight weeks. Difficulty was experienced in persuading patients to complete the course of treatment and to report regularly; hence the number of patients treated was too small for evaluation.

PEDIATRICS

The Care of the Premature Infant from an Obstetrical Standpoint — Johnson, Robert A. —Texas State Journal of Medicine, 41:5 (May) 1945.

The author of this article is no doubt a recognized physician and obstetrician with ability. I commend it to the profession of the state to be read and weighed in the light which it is given. The following quotation from this article may be read with interest and profit by the practitioners of this state. "The object of the obstetrician is two-fold, first, to see that the expectant mother passes through the period of gestation safely, and second, to aid in carrying the product of conception a sufficient length of time so that after its expulsion the newborn is alive and healthy for at least six weeks. Thereafter the responsibility of the infant rests with the pediatrician. The greatest risk occurs to the infant during the first two days of life as shown by the fact that approximately 70 per cent of neonatal deaths occur during this time."

"Since 1941 there has been, in various cities in the United States, a definite, alarming increase in both maternal and infant death rates. These increases have been found to be due to a decreased number of civilian physicians, crowded hospital conditions, increased travel by the expectant mother, and inadequate help in the home."

"With the employment of the routine Wassmann reaction on all pregnant women, syphilis has almost disappeared as a cause of prematurity. It is most striking to see how few infant deaths are attributable to syphilis in the annual report of the large obstetric clinics. The medical profession has been taught . . . that hypothyroidism frequently is the cause of premature delivery and how it can be corrected by keeping the basal metabolic rate within normal limits. No doubt general hygienic measures play a definite part in the continuation of pregnancy to viability of the fetus. Frequent hemoglobin determinations will aid in recognizing anemia and Rh determinations may be employed routinely in the near future."

"Intrapartum Care. One should attempt to determine the size of the baby at the onset of every labor and, if the child seems to be less than 5½ pounds in weight, no opiates should be given in order to stop uterine contractions. It is much wiser to rely on small doses of barbiturates or preferably avoid any analgesics, acquainting the patient with the reason for not attempting to alleviate her pains of labor. The administering of vitamin K to the mother during labor is beneficial to the premature infant by correcting any lack of prothrombin. Inhalation anesthesia should be avoided in the majority of the cases of prematurity and the use of local infiltration, such as pudendal block, offers the premature infant its best chance of survival. Episiotomy is frequently a wise measure to prevent any harm to the small head of the infant. Spontaneous delivery offers less trauma than any operative interference . . . No doubt in the severe cases of preeclampsia when the cervix is not suitable for induction of labor cesarean section under local, caudal or spinal anesthesia will save more uninjured premature babies than the method now employed of induction of labor with delivery through the natural passages.

"Postnatal Care. As soon as the premature baby is delivered it should be kept warm, by placing it in an already prepared incubator with available oxygen. The trachea should be carefully and thoroughly cleansed of any mucus. The umbilical cord should not be clamped until it has quit pulsating so as to obtain as much blood as possible. Nurses especially trained in the care of premature infants should be constantly in attendance." It is generally recognized that the premature infant often develops serious anemia by the third of fourth month of life. The obstetrician should aid the pediatrician in preventing the development of the serious state of this condition."

COMMENT

We would have no argument with this distinguished physician about the main points in his discussion ,however, we are inclined to impress the fact that premature babies should, if possible, be in the hands of a recognized pediatrician as early as possible after birth. Premature infants should not be handled by a family physician or obstetrician any longer than time will permit to get the premature infant in care of a recognized pediatrician. We are firmly convinced that a periatrician is just as essential in the case of prematurity as a surgeon of recognized ability in acute surgical abdomen or as an orthopedist in a complicated bone fracture.

H. F. G.

INFORMATION WANTED!

The Directory Department and the Bureau of Information of the American Medical Association are very anxious to obtain the names and present addressses of all physicians who have been released from the armed forces and also the date that their military service terminated.

These names will be listed in the *Journal A. M. A.* and in the Directory Report Service. Many inquiries are being received daily from physicians who are trying to locate either former colleagues or medical officers whom they contacted while in military service.

If you know of any physicians who have recently been released from the armed forces, please urge them to send the following information to the Directory Department, American Medical Association, Chicago, 10, Illinois:

1. Full name
2. Date military service began and terminated.
3. Present address (residence and office)
4. Indicate whether in practice, retired, or not in practice (on terminal leave, etc.)
5. If serving a residency in a hospital, indicate period it is to cover.
6. Former permanent address (if different from item 3.)

State Board of Health

Felix J. Underwood, M.D.

BRIDGING THE GAP

by

Eleanor Hassell, B.A., M.P.H.
Assistant Director, Health Education

The physician today is more interested than ever before in the health education of his patients. He is awake to the importance of prevention of disease as well as the promotion of physical fitness. Needless to say, he finds it helpful for the patient to have an intelligent appreciation of some of the fundamentals of health and disease.

A great deal more is known about health than is done about it. Medical science has the answer to many health problems which still plague the people of the state. Part of the answer to the lag between scientific knowledge and healthy people is health education.

What is health education? This is a 64 dollar question. Health education is a lot of little things. Health education is also a lot of big things. One sees its results in the bright eyes and sparkling teeth of children. It is seen again in clean, well-ventilated schoolrooms; in youngsters washing their hands before lunch, drinking milk and eating oranges, playing games in the sunshine and fresh air in a spirit of fairness and sportsmanship, getting enough sleep and rest, and in observing the rules of good personal hygiene.

In communities, it is safe water supplies and sewage disposal. It is clean, safe food-handling establishments; it is immunization against preventable diseases; it is draining swamps and screening homes; it is medical examination and advice for needy expectant mothers, children, and others. In other words, health education is healthful action.

Health education is not new. It is as old as man. Moses enacted the first sanitary code. Physicians have been doing health education for years. Health workers, dentists, nurses, teachers practice health education every day they work. But we still have many needs and problems for health education to meet; so many that in recent years a great organized effort has been gathering momentum for a more intensive attack on health problems through education.

What are some of these problems? The so-called third of the population that is ill-fed is only a starter. Nutrition is basic to good health; malnutrition and deficiency states sap vitality and often lead to serious disease. Such borderline signs of malnutrition as night blindness, nervousness, and spongy gums are relatively widespread. The fortunate individual whose symptms are recognized early can usually be restored to health by a correction of dietary habits. It is considered by outstanding nutrition authorities that man is to a marked degree what he eats. Those who have made studies of families over a period of years find that their physical, social, economic, and mental stature are greatly affected by the food they consume. Less scientific but nevertheless significant experiments in nutrition have been conducted through school lunchroom projects. Instead of a scant lunch or none at all, children have received a nourishing meal in the middle of the day. Results have been gratifying. Children are healthier, minds are keener, grades are better and disciplinary troubles are markedly reduced.

Another widespread problem in some sections of the state is hookworm disease. Hookworm infection affects as many as 70 per cent of the children in some of the areas of south Mississippi. Tooth decay with gum boils, abscesses and bleeding gums lowers the vitality of thousands of school-age children. Such preventable diseases as diphtheria and whooping cough are still prevalent. Then there is tuberculosis, an outstanding example of a disease in which education is so imperative. With no specific drug to cure it, educational measures must be directed toward early medical and perhaps surgical attention, proper diet, rest, fresh air, and good hygiene. Close coöperation of the patient with his physician is stressed, and he is encouraged to conform to whatever new mode of living the physician may devise for his early recovery.

Another health problem is malaria, which is being attacked both by elimination of mosquito-breeding areas and by education. Much has been accomplished in reducing the incidence of this disease in the state but there are still several hundred who suffer its ravaging chills and fever every year.

Malnutrition, dental decay, tuberculosis, hookworm disease, malaria—these are some of Mississippi's more obvious and immediate health problems. It is within the province of health education to create in people an awareness of these and other health problems, to give them sound information as to what they can do to help toward their solution, and to stimulate and encourage constructive action.

Mississippi is a fortunate state in that education and health departments have joined hands in a combined educational attack against forces which jeopardize good health. Teachers are learning through workshops how to teach the fundamentals of healthful living and disease prevention. In addition to the central state staff, four county health educators have been at work and they will soon be joined by eight trainees now studying at two of the country's outstanding schools of public health. So important is this health education program that friends outside the state, notably the general education board of the Rockefeller Foundation, have made possible fellowships for a limited number of properly qualified people to train in this field of work.

A professional health educator has many and varied duties. Given an area in which to work, she first surveys the community to determine what its particular health problems are. She then assists others in surveying and finding out the health problems in their own fields of interest. For instance, she helps the teacher survey her classroom to find out if the lighting, seating, heating, and ventilation are satisfactory. The interested teacher will want to make certain about such questions as these: Is plenty of safe drinking water available? Is there opportunity for the children to wash their hands? How many of the children sleep sufficiently long hours every night? How many give evidence of good sight; of good hearing? How many have three nourishing, wholesome meals each day? Am I a healthy, happy teacher? Do I avoid the use of fear and intimidation in my relations with the children in my care? These are but a few searching questions which the teacher may ask herself in regard to health in her classroom.

The term "survey" has been so often used and abused that many have come to regard it almost with apathy. If, however, people who need the information can be helped to make their own health surveys, a real awareness of their strong points and weak points results.

Another thing which the health educators do is to assist in stimulating health interest and awareness among such groups as already have health activities—voluntary health agencies, women's clubs, agricultural groups, civic organizations and service clubs. Almost always these groups are already interested. Often they need only encouragement and occasional help to achieve good results.

In some parts of a county where no organization exists with which the health educator can work, she organizes special health study groups or committees. Another of her jobs is to assist professional, voluntary and lay organization leaders and committee members to plan and conduct forums, institutes, and other forms of study and action programs on health and related problems. She also helps in planning in-service training programs for teachers and others, in pre-service training, in consultation and guidance for adult groups, and in widespread use of educational pamphlets, newspaper releases and the radio.

One county health educator, working in the Delta area, reported on one recent month's work as follows:

> The American Legion series in parenthood education has been started in four communities. Schedules have been set up for the next three months to complete the course in each community.
>
> The Parent-Teacher Association in one town is giving fifteen minutes of each monthly meeting to health. The health educator attended all major venereal disease clinics during the month, gave talks, showed movies. Nine community health clubs for Negroes have been organized in the communities where the vocational schools are located. The health educator holds two or three night meetings each week which makes possible a monthly meeting in each of these communities. Once a month the Negro county council meets with leaders of the county and representatives from each of these clubs. These organizations provide a channel for the adult Negro health education program. The Negro schools in the county have all been open during August. Teachers were reached by working with primary, upper elementary, and high school groups at two monthly meetings of the county teachers' association. Separate group planning was done with committees from each of these

groups in the health educator's office. Eleven charts and graphs on the incidence of sickness, death, and other vital statistics were prepared for the annual report. Two original radio programs and six newspaper stories were prepared by the health educator.

This report reflects but a few of the activities of a local health educator for one month. Programs vary from month to month as the need in the county varies. Always the educational program is tied into the service program rendered by the health officers and other staff members. People who are getting immune serum for measles, chest x-rays, or having DDT sprayed in and near their homes are naturally interested in these subjects and are glad to learn more about measles, tuberculosis, or malaria. Therefore the health educator makes a special effort to see that information is imparted when interest is high.

Constant evaluation goes on in the health educator's planning and direction of her efforts. If what she does influences favorable action on the part of individuals, school and communities, then the plan is working. If not, another plan or another approach is tried.

Specific cures are available to eliminate hookworm disease, syphilis, and other disease enemies in Mississippi. Preventive measures such as immunization, sanitation and isolation are possible which could reduce to a fraction the annual toll of many communicable diseases. The newer knowledge of nutrition plus other measures of personal hygiene and a more general application of today's scientific knowledge could build a much stronger, more physically fit race of men, capable of assuming the full responsibilities of citizenship in a period when so much strength and wisdom are needed.

The difference between what is known and what is done is the province of health education. It is a field of unlimited opportunities for human betterment.

FEAR, IGNORANCE, AND DELAY —

Representatives of twelve Southern states attended the Fourth Training School, Region Three, Field Army, the American Cancer Society in Durham, North Carolina, on October 22, 23, and 24, 1945.

"Fear, ignorance, and delay, three great allies of cancer can only be eradicated through education," said Mr. J. Louis Neff, executive director of the American Cancer Society, in addressing the regional conference. He also said, "Education is a mental vaccination. It vaccinates the mind to prepare the individual for the day when cancer becomes a personal problem. Education must be a continuous process and universal in its scope so that the public will face the facts sanely and calmly and accept the chances of cure. Along with education we must provide for examination centers, improved diagnostic and treatment services and greatly enlarge the research program."

Talks made were "A Preview of a New Era" by Dr. Edwin P. Lebman, vice-president of the American Cancer Society, "Plans and Programs of the American Cancer Society," Mr. J. Louis Neff, "Training Workers in Health Education," Dr. Lucy Morgan, professor of public health, Chapel Hill, North Carolina.

The educational program of the American Cancer Society was discussed at Chapel Hill in the School of Public Health. Participating in this program were: Mr. J. Louis Neff, the American Cancer Society, Dr. J. M. Rosenau, dean of the School of Public Health, University of North Carolina, and Dr. Lucy Morgan, professor of public health. Mrs. Harold V. Milligan, national commander, the Field Army of the American Cancer Society, Doctor Rosenau, Dr. Alton Ochsner, medical director of the Field Army, Region Three, of Ochsner Clinic and professor of Tulane University, New Orleans, and Miss Eleanor Hassell, assistant director of health education, Mississippi State Board of Health, participated in the discussion. Students in the School of Public Health and a health educator told of health education activities and discussed the function of a health educator.

Duke University Hospital was used for scientific talks. Topics and speakers were:

"Carcinoma of the Breast"—Dr. Deryl Hart, Duke University.

"Malignancy in the Urinary Tract"—Dr. E. P. Alyea and Staff, Duke University.

"X-ray Therapy in Malignancy"—Dr. Robert Reeves and Staff, Duke University.

"Bronchiogenic Neoplasms"—Dr. Alton Ochsner, Tulane University.

"Malignancy in Bone"—Dr. R. A. Moore, Bowman Gray School of Medicine.

"Malignancy of the Thyroid"—Dr. Roy McKnight, Charlotte, N. C.

"Carcinoma of the Uterus"—Dr. Bayard Carter, Duke University.

"Chorio-epithelioma"—Dr. Ivan Procter, North Carolina.

"X-ray in Malignancy of the Uterus"—Dr. H. B. Ivey, Goldsboro, North Carolina.

Sessions on publicity, campaign techniques, and financing the programs were held. The 1945 campaign awards for funds raised were presented to Louisiana and Oklahoma. Campaign plans for 1946 and materials to be used were discussed.

Subjects discussed in panels were: Organizing the State Division, Organizing the Field Army, the History of the Field Army, Coöperative Effort in Cancer Control, Financial Policies, and Refresher Courses.

Dr. Felix J. Underwood, executive officer of the Mississippi State Board of Health and chairman of the state executive committee of the American Cancer Society, participated in discussions and presided over the session for the discussion of coöperative effort in cancer control. Others on the program were: Mrs. J. I. Wates, state commander, Mississippi Division, the American Cancer Society, Dr. Emma Gray, regional chairman of the service program, the American Cancer Society, and Miss Eleanor Hassell, assistant director of Health Education, Mississippi State Board of Health.

The annual meeting of the American Cancer Society will be held at the Edgewater Gulf Hotel, Edgewater Park, Mississippi, in the fall of 1946. Mississippi will welcome representatives from all of the states and national regional officers to this first national meeting of the American Cancer Society to be held in the South!

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	Sept.	Sept.	Sept. 5-Yr.
Acute Poliomyelitis	13	34	16.6
Bacillary Dysentery	925	1011	845.8
Dengue	10	2	2.2
Diphtheria	94	79	60.6
Influenza	1880	2069	1820.4
Measles	85	119	166.0
Meningococcus meningitis	5	9	5.0
Other Forms Meningitis	3	5	2.6
Pellagra	170	248	252.2
Pneumonia	573	566	487.2
Pulmonary Tuberculosis	137	229	138.2
Scarlet Fever	40	44	42.6
Smallpox	0	0	.0
Tularema	4	4	2.2
Typhoid Fever	18	25	23.0
Typhus Fever	37	17	19.2
Undulant Fever	21	6	7.2
Whooping Cough	379	898	653.0

NEWS ITEM

The Mississippi Public Health Association will meet in annual session in Jackson, December 10-12, according to an announcement from Dr. H. B. Cottrell, secretary. An excellent program is being planned which it is hoped will prove helpful and stimulating to members and guests alike.

Woman's Auxiliary

President	Mrs. L. J. Clark	Vicksburg
President-Elect	Mrs. Stanley Hill	Corinth
First Vice-President	Mrs. H. C. Ricks	Jackson
Second Vice-President	Mrs. Henry Boswell	Sanatorium
Third Vice-President	Mrs. W. H. Anderson	Booneville
Recording Secretary	Mrs. Geo. W. Owens	Jackson
Fourth Vice-President	Mrs. Ben Walker	Jackson
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey Garrison	Jackson

CHRISTMAS

There is no time during the year when our hearts should be more grateful and the spirit of good fellowship more evident than at Chrismas time. This year, our first Christmas since the war's end, should be a joyous one for once more the song of long ago rings out to proclaim to the world "Peace on earth, good will to men".

The happy Christmases of the past will this year be revived. Christmas carols, Christmas trees, holly wreaths, family gatherings were cherished memories of our boys in the armed service thousands of miles from home. As these cherished American traditions again become part of their lives this joyous season as families are reunited, let us observe this Christmas with prayers of thankfulness and gratitude for our many blessings.

Where there is peace and good will there is love, affection, and kindness. Wars cannot erase the many good qualities of man. Christmas as well as throughout the year we should practice respect and consideration for others. Happiness for ourselves and others ultimately comes through service mankind.

There is no better place and no better time to cultivate the spirit of good fellowship than in our own Woman's Auxiliary at this holiday season. The war-torn world needs the kind and friendly spirit that we can practice in our group of doctors' wives.

We must again turn to the same Star, listen to the same Song and bow again at the feet of the Babe of Bethlehem that we seem to forget.

In each home may there be happiness, cheer, and comfort for those in sorrow . . . consideration for all. It is Christmas. It is a time for good will. It is peace.

With affection,
(Mrs. L. J.) Anne J. Clark
President

CLARKSDALE AND SIX COUNTIES AUXILIARY

The Clarksdale and Six Counties Auxiliary met in Clarksdale on November 7, 1945, for the regular fall meeting. Preceding the business a delightful tea hour was enjoyed with the nurses of the Coahoma County Health Department as guests.

The following officers were elected for the ensuing year: president—Mrs. T. G. Hughes, Clarksdale; vice-president — Mrs. Arthur Smith, Sumner; secretary-treasurer—Mrs. D. H. Raney, Mattson; and program chairman—Mrs. J. L. Levy, Clarksdale.

In the absence of the president, Mrs. T. G. Hughes, who was ill, Mrs. J. L. Levy presided. The speaker of the afternoon was Miss Cassie Smith, who chose as her subject, "The Activities of the Doctor's Wife in Connection with the State Welfare Program."

The meeting adjourned and the doctors' wives joined their husbands at the Alcazar Hotel for the banquet. Dr. Charlie Mitchell, Whitfield, Miss., was the after dinner speaker.

IN MEMORIAM

(Tribute by Mrs. Harvey F. Garrison, Sr.)

Since the close of our Auxiliary meetings of the past year another faithful member has passed to life eternal — Lillie Mckee Van Alstine, wife of the late Dr. Frank L. Van Alstine, outstanding urologist of Jackson, Mississippi, entered into the heavenly portals on August 12, 1945. I had many personal and intimate contacts with her and deem it a privilege to try to pay her a just and loving tribute, for to know her was not only to love her but to praise her.

She stood for certain sterling qualities of mind and spirit that have a value and a significance, impersonal and enduring.

Her work as state president of the Woman's Auxiliary in 1933 was outstanding and while we shall miss her friendly face and the wisdom of her counsel, we shall not feel that she is entirely separated from us, for her contributions and enthusiasm for Auxiliary work has given her an imperishable share in its achievements. Her work, well done, is worthy of emulation by us and could inspire us to carry on beneath a banner raised high in loyalty and devotion to our purpose.

She had not reached the sunset of life, but in the noontide answered the call, *Come unto me all ye that labor and are heavy laden and I will give you rest.*

Lillie was an ardent and faithful worker in her home, her community, and her church, a devoted and helpful wife, an affectionate and attentive daughter, an efficient and loyal club and church worker.

We remember Christ promised us in John 14, *In my Father's house there are many mansions—I go to prepare a place for you.*

"Long, long may my heart with sweet memories be filled,
Like the vase in which roses have once been distilled
You may break, you may shatter the vase if you will,
But the scent of the roses will cling 'round it still."

She is gone and the vase of her life is shattered but the scent of the roses brings 'round her memories still.

NORTHEAST MISSISSIPPI THIRTEEN COUNTIES AUXILIARY

The last quarterly meeting of the Northeast Mississippi Thirteen Counties Auxiliary will meet December 11 at the home of Mrs. R. D. Kirk in Tupelo at two o'clock. All members are urged to be present for this Christmas meeting.

* * * * *

Poise is that quality which enables you to try on a pair of shoes without seeming to be aware of the hole in your sock.

—Gelett Burgess

Thyroid + MULTI-VITAMINS
all in ONE tablet

WARREN-TEED VITAROID

Thyroid Substance, the highest quality available

Enzyme-Forming Vitamins, to activate the thyroid substance

Deficiency-Preventing Vitamins, to compensate for increased metabolic rate or dietary restrictions. This balanced formula — for improved thyroid therapy — in each Warren-Teed VITAROID tablet:

Thyroid	*32 mg. (1/2 gr.)*
Vitamin A	*2000 U.S.P. Units*
(Distilled from fish liver and vegetable oils.)	
Ascorbic Acid	*15.0 mg.*
Synth. Oleovitamin D	*200 U.S.P. Units*
(Activated Ergosterol)	
Riboflavin	*1.0 mg.*
Thiamine Hydrochloride	*0.5 mg.*
Nicotinamide	*5.0 mg.*

For Quality Pharmaceuticals, Prescribe

WARREN-TEED

Medicaments of Exacting Quality Since 1920

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

W BY ANY TEST Pharmaceuticals T

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

The Endocrine Aspects of Hypertension

James H. Hutton, M. D.

Chicago, Illinois

HYPERTENSION, now one of the leading causes of death, merits study from every angle that promises to throw light on its etiology or treatment. Its endocrine aspect is probably neglected more than any other phase. The following remarks are intended only to call attention to the fact that some cases—probably a small percentage—seem to be based on endocrine disorders and to be more satisfactorily managed when approached from that standpoint.

There is considerable evidence that endocrine disorders may sometimes constitute the only, or the principal, etiologic factor. Endocrine preparations may be used with considerable relief in some cases and in others certain of the endocrine glands may be attacked directly by surgery, radium or x-ray with the idea of changing their functional and anatomic statue, with resultant or coincident relief of symptoms and reduction of blood pressure.

Endocrinologists seem inclined to take a too restricted view of endocrine disorders. They center their study on the functional status of a single gland or a single tissue affected by one hormone of the gland under scrutiny. In so doing they may overlook the fact that syndromes ordinarily thought to be far removed from the endocrine system may have an endocrine component, or the patient a concomitant endocrinopathy. Treatment of the latter sometimes has a surprisingly good effect on the primary syndrome.

Etiologic Factors. Hypertension has been found in association with the following endocrinopathies: hyperthyroidism, hypothyroidism, cancer of the thymus, some tumors of the adrenals involving either the medulla or the cortex, certain ovarian tumors and some malignant tumors of the testes. Evidence suggests that the eosinophilic cells of the anterior lobe of the pituitary secrete a substance which influences kidney function. An increased secretion of the basophiles of the anterior lobe pregnancy has been demonstrated.[2] Hofbauer[3] of the pituitary during the last trimester of says there is ample proof for the view that the toxemia of pregnancy is the result of an undue activity of the posterior pituitary. Griffith[4] reports the production of permanent hypertension in rats by the repeated intraperitoneal injection of small doses of pitressin. Liemdorfer[5] observed the same effect after the intrathecal injection of posterior pituitary extract. All forms of hyperpituitarism-gigantism, basophilism and acromegaly—have been found in association with hypertension or diabetes or both. The number of acromegalics affected with diabetes is estimated from 40 per cent downward. On the other hand, Simmonds' disease and less severe forms of pituitary deficiency are accompanied by a tendency to lower blood pressure and an increased tolerance for glucose. Addison's disease is characterized in most cases by hypotension and a tendency to hypoglycemia.

MacKay and Sherrill[6] report a direct relationship between the functional activity of the kidneys and the level of thyroid function. It has been reported[7] that testosterone administered to rats was followed by enlargement of the kidneys and hypertrophy of the tubular epithelium. Such kidneys were said to be more resistant to nephrotoxic agents. The administration of desoxycorticosterone acetate is said to cause an increase in the weight of the kidneys and the size of the renal tubules.[8]

Selye and Hall[9] reported that cardiac hypertrophy and nephrosclerosis were readily produced in rats by overdosage with desoxycorticosterone acetate and sodium chloride. They suggested that adrenal cortical hyperactivity be considered as a possible etiologic factor in renal hypertension in man.

Diabetes has been noted in most of the endocrine disorders associated with hypertension except hypothyroidism.

The many resemblances between hypertension and diabetes suggest a least common denominator in their etiology and the available evidence points to the pituitary and adrenals as the most likely offenders.

Treatment. A rise in the systolic without a corresponding increase or even with some decrease in the diastolic pressure is a common occurence in Graves' disease. Hyperthyroidism associated with adenoma is often accompanied by hypertension and cardiovascular-renal disease. Correction of the hyperthyroidism in such cases is followed by reduction in hypertension if the process has not gone too far. Bisgard[10] reports that 50 per cent of his series experienced a reduction in both systolic and diastolic pressure following thyroidectomy.

One sees an occasional case of hypertension with hypothyroidism in which the administration of an adequate dose of thyroid is accompanied by marked reduction of the blood pressure.

The onset of hypertension often occurs at the menopause. Schaefer [11] reported satisfactory reduction of blood pressure following the administration of estrogens in thirteen menopausal women. Other writers [12], [13] have reported similar experiences. The administration of some of the synthetic estrogens is reported to have been followed by considerable reduction in blood pressure.[14]. My own experience in the treatment of hypertension with the estrogens has not been satisfactory. I have seldom seen any noteworthy reduction in blood pressure accompany this type of therapy.

Testosterone is reported[15] as having a beneficial effect in some cases of hypertension. I have treated a few cases in this way with favorable results. This substance has also been reported [16] as relieving some cases of angina. The optimum dose seems to be 25 mg. twice weekly for eight weeks. As symptoms improve the frequency of injections should be reduced to the number necessary to keep the patient comfortable. A better method of administering this substance is by implantation of pellets subcutaneously. Three or more 75 mg. pellets may be implanted each time and repeated as indicated by the recurrence of symptoms. Unfortunately these pellets cannot always be obtained.

Where hyperfunctioning glands can be recognized they should be removed in whole or in part by the surgeon or reduced to more nearly normal levels of function by the roentgenologists. Unfortunately tumors of the adrenal cortex too small to be recognized preoperatively may be sufficiently active to cause hypertension or diabetes. Hyperfunctioning adenomas of the anterior pituitary may also be so small as to escape detection by our present diagnostic methods. Where the diagnosis can be reasonably substantiated, the roentgenologist may give considerable relief.

Griffith et al[4] report that the antidiuretic substance of the posterior lobe disappeared from the serum of a hypertensive for six months following irradiation of the pituitary. The blood pressure fell from 230 to 130. Three weeks after the antidiuretic substance reappeared the blood pressure rose to 190. After further irradiation it disappeared and the blood pressure fell to 128. Papilledema disappeared in two of their cases following irradiation.

Some obese patients with hypertension exhibit the signs and symptoms of combined pituitary and thyroid deficiency. Some of these respond very well to a reduced caloric intake plus the administration of desiccated thyroid and pituitary extracts. The correct dose of thyroid can be determined only by testing the patient's response to gradually increased doses. Begin with one grain per day. In one week if there are no signs of hyperthyroidism add one-half grain per day and continue for another week. At that time the dose may be increased another half grain. The dose may be accurately determined by clinical observation without determining the B. M. R. Signs of overdosage are tachycardia, tremor of the tongue or outstretched fingers, nervousness, insomnia or a slight rise in temperature. When any of these occur reduce the dose of thyroid by 25 per cent and continue at that level.

Before giving a course of injections of pituitary extracts the blood pressure and blood sugar response to them should be checked. Take the blood pressure before and after the injection of 0.5 cc. anterior pituitary extract and on another day repeat the procedure using 5 units of posterior lobe extract. The blood sugar (it should not, or at least need not be fasting) should be taken before and one hour after these injections. The blood pressure should be taken every 15 minutes for an hour and a half after the injections. If there is a significant rise in blood pressure or blood sugar following these injections, they should not be used in treatment. On the other hand, if the blood pressure falls markedly, it is more than likely that an injection of these substances given twice weekly for two months and then once a week for ninety days will have a markedly beneficial effect on the blood pressure and symptoms. Cases in which this type of therapy is helpful are not, so far as my experience goes, numerous.

Two measures for the relief of hypertension have received general acceptance within the past decade: first, surgical interference with the sympathetic and, second, kidney extracts. The various surgical procedures presumably owe part of their good effects to a change in the level of adrenal function and, through the influence of these glands, also of pituitary function. Boyer [17] says that patients showing the best results from surgical procedures are the ones who often do well on medical management, namely those with early, mild hypertension, and says that the percentage of reported success is not significantly greater with surgical than with medical management.

For more than ten years we have treated some carefully selected cases of hypertension by low-dosage irradiation of the pituitary and adrenal regions. Four hundred and three cases have been treated in this way. Out of 317 cases that we thought had adequate treatment, 221 or 69.8 per cent are said to have improved.

Symptomatic relief is much more striking than the effect on blood pressure and occurs manv times when the blood pressure is but little affected. Headache, vertigo, nervous tension, heart consciousness and precordial pain are the symptoms most often relieved.

The most favorable results have followed the use of the following factors: 120 kilovolts, 2 mm. aluminum filter, 50 cm. skin target distance, 3 milliamperes, 50 r to each area treated. Each side of the pituitary is treated through a portal 10x10 cm. and the adrenals through a common portal 15x15 cm. The three areas should be treated on the same dav. Treatments may be repeated at weekly intervals until six are given. If a significant fall in blood pressure or relief of symptoms follows the first or any other treatment, no more are given until there is a rise in blood pressure or a recurrence of symptoms. Hence one or two treatments may be sufficient for several weeks or months.

Confirming our own observation that only small doses of irradiation are effective in reducing blood pressure, others[18] using larger doses have reported failure to achieve worthwhile results. The doses were approximatelv ten times as heavy as those we found effective. We had discovered long before these reports that such large doses fail to produce significant symptomatic relief or reduction in blood pressure. It should be remembered that small doses or roentgen rays are effective in the treatment of certain infections while heavier doses do no good.

At various times over the past thirty years men have irradiated the adrenals in the hope of favorably influencing hypertension. Worthwhile results have seldom followed such procedures. Raab,[19] using much larger doses applied to the adrenal region, noted no effect on blood pressure though he reported ability by this procedure to relieve angina pectoris. It appears that including the pituitary in these treatments and using very small doses of the rays makes them more effective.

Considering our incomplete knowledge of hypertension it may be set down as an undisputed truth that no victim of hypertension has been completely studied until his endocrine status has been determined.

BIBLIOGRAPHY

1. Barnett, H. L.; Perley, A. M.; and Heinbecker, F.: Influence of Eosinophilic Cells of Hypophysis on Kidney Function, Proc. Soc. Exper. Biol. and Med. 52:114-116, Febreary, 1943.

2. Severinghaus, A. E. Cellular Changes in Anterior Hypophysis with Special Reference to Its Secretory Activities: Physiol. Rev. 17:566-588, October, 1937.

3. Hofbauer, J.: Endocrine Factors in the Mechanism of Toxemia of Pregnancy, Am. J. Surgery New Series LXV pages 361-363 September, 1944.

4. Griffith, J. Q. Jr.: Corbit, H. O'Brien; Rutherford, R. B.; and Lindauer, M. A.: Studies on Criteria for Classification of Arterial Hypertension V. Types of Hypertension Associated with the Presence of Posterior Pituitary Substance. Am. Heart Journal 21: 77-79 January, 1941.

5. Leimdorfer, A. Ueber die Wirkung intralumbal eningefuhrter Hypophysenpraparate auf den Bautdruck, Arch. f. exper. Path. u. Pharmakol. 118: 253-258, 1926.

6. MacKay, Eaton M. and Sherrill, James W.: Influence of Thyroid Activity upon Renal Function, J. Clin. Endocrinology 3: 462-465, August, 1943.

7. Editorial: Relation of Androgens to Kidney Function, J. Clin. Endocrinology 3: 111, February, 1943.

8. Anderson, John A. Desoxycorticosterone Acetate and Water Exchange, J. Clin. Endocrinology 3: 615, November, 1943.

9. Selye, Hans and Hall, C. E.: Production of Nephrosclerosis and Cardiac Hypertrophy in the Rat by Desoxycorticosterone Acetate Overdosage, Am. Heart Journal 27: 338-343, March, 1944.

10. Bisgard, J. Dewey: The Relation of Hyperthyroidism to Hypertension, Ann. of Surg. 115: 42-46 January, 1942.

11. Schaefer, Robert L.: Menopausal Hypertension, Endocrinology 1: 705-709, November-December, 1935.

12. Queries and Minor Notes: J. A. M. A. 112: 354, January 28, 1939.

13. Walker, T. C.: Use of Testosterone Propionate and Estrogenic Substance in Treatment of Essential Hypertension, Angina Pectoris and Peripheral Vascular Disease. J. Clin. Endocrinology 2: 560-568, September, 1942.

14. Hufford, Alvin Ray: The Synthetic Estrogen

Octofollin (in oil) Report of Clinical Investagation, J. A. M. A. 123: 259-260, October 2, 1943.
15. Sex Hormones and Hypertension, Section called "Annotations" Lancet 2: 901-902, April 16, 1938.
16. Waldman, Samuel: The Treatment of Angina Pectoris with Testosterone Propionate, J. Clin. Endocrinology 5: 305-317, September, 1945.
17. Boyer, Norman H.: The Treatment of Hypertension, Med. Clin. North America 26: 1421-1437, September, 1942.
18. Baird, Perry C.; Lingley, J. R., and Palmer, Robert Sterling: The Failure of Roentgen Ray Therapy of Pituitary and Adrenals in Essential Hypertension, New England J. Med. 211: 952-953, November 22, 1934.
19. Rabb, W.: Roentgen Treatment of the Adrenal Glands in Angina Petoris (One Hundred Cases) Ann Int. Med. 14: 688-710, October, 1940.

Epidemoid Carcinoma of the Lower Gingiva

A. J. STACY, Jr., M. D.

Tupelo, Miss.

THE TITLE OF this paper has been so chosen in order that the overwhelming confusion associated throughout the literature might not further be embarrassed with an additional burden as concerns intra-oral carcinoma. This particular subject has apparently been the most neglected of all carcinomata, and in the language of an interne, it might be considered as the parasite of intra-oral carcinoma. It has been reported under various titles as cancer of the jaw, alveolus, alveolar border, alveolar process, or mandible; all of which are incorrect from an anatomical standpoint. Gums, or gingivae, is the only term which defines the soft tissues covering the alveolar processes of the maxillae or mandible, and so, gingiva has been adopted.[1]

The present report is based upon an unselected and consecutive group of twelve cases, including all comers to Ellis Fischel State Cancer Hospital, who have proved primary carcinoma of the lower gingiva by biopsy.

ANATOMY OF THE LYMPHATICS

(a) **External or vestibular surface**—The external gingival lymphatic network forms a plexus in the lower gingivo-buccal gutter, which anastomoses across the midline anteriorly. In the gingivo-buccal gutter on each side the vessels pass laterally into the cheek, join the lymphatics of the cheek, and pierce the buccinator muscle to drain into the prevascular node, and in most cases, into the preglandular and retrovascular nodes as well.

(b) **Internal lingual surface**—The internal vessels make up part of the lymphatic network of the floor of the mouth and under surfaces of the tongue; the larger vessels pierce the myelohyoid and drain mainly into the preglandular node of the submaxillary group. Considerable drainage from this area, especially from the posterior region, passes directly to the subdigastric nodes of the internal jugular vein.

A small part of the lymph from the anterior inner surface passes into the submental nodes with the drainage from the adjoining floor of the mouth.[1]

General Incidence—Johnson and Daniels[9] state that squamous cell carcinoma of the lower gum constitutes almost one-half of malignant growths of the buccal mucosa. It is reported by Martin[1] that cancer of the gums makes up about 10 per cent of all malignant tumors of the mouth with cancer being more common in the lower rather than the upper gingiva (fifty-four cases as compared with forty-six). Gaini[6] reported a series of fifty-three cases in which 68 per cent of the tumors occurred in the lower jaw.

Age, color and sex—The average age of twelve patients in the present series was 67.4 years. The youngest patient was forty-eight and the oldest patient eighty-three years old. All of the patients were males, and all were white with the exception of one colored patient. Kirkham[4] has made the statement that these tumors as well as all jaw tumors with the exception of equlis, are more common in the Negro race.

Position of Growth—In the present series three lesions occurred in the region of the third molar; two occupying an entire one side;

---

*Read before the Northeast Mississippi Thirteen Counties Medical Society, Tupelo, December 11,1945.

one in the region of the canines; one at the angle of the mandible; and five with regions not listed. Six of the lesions were located on the right side, and six on the left side. The size on admission varied from 1x0.5 cm. to involvement of the entire one side. Thoma[5] states that the third molar region between the mandible and the cheek is a favorite location.

Causitive Factors—As of all cancer, many ideas and causes of cancer have been offered, but nothing might be earmarked as truly revealing. Some of the various contributory factors are infections around the teeth, retained tooth roots, ill-fitting dentures, tobacco, and syphilis. Quick[6] raises the question concerning the reaction of tissues to gold in which he has found the adjacent membrane to be unduly indurated and leukoplakia common. Johnson[7] concluded that cancer of the lower jaw rarely occurs in a clean mouth where the normal alkaline reaction of the saliva is retained. Bloodgood[8] states that the most common cause of cancer of the mucous membranes of the gum is leukoplakia. In ninety of the Wassermann tested cases of Martin[1], positive reactions were obtained in only 3 per cent. In the present series there occurred only one positively tested Wassermann. Also in this series there were three patients in whom a previous recent extraction of teeth in the affected area was reported. Kirkham[4] states that in practically all of his cases the teeth had been extracted under the mistaken supposition that they were the offending members.

Symptoms—In this series, the most common first symptom was divided equally between pain and a swelling mass, with the second most common being pain. Martin[1] reports 70 per cent of his patients with a first symptom of "soreness." Johnson and Daniel[2] state, that unlike malignant disease in other areas of the body. pain may be a fairly early evidence of the disease. The duration of symptoms varied from two months to fifteen years with an average duration of symptoms being 24.3 months. The average duration of symptoms as reported by Martin[1] was 6.2 months.

Clinical Course—"Carcinoma on the gingiva may form an ulcer with a raised, indurated margin containing nodules which may be multiple. In other instances it develops to a larger size and forms a bulky tumor that slowly forms a large undulating mass which, when found in the mandible, pushes the tongue aside. When occurring on the external sides of the jaws it produces facial deformities."[5] "The lesion usually occurs first on the apex or margin of the gums, which produces neither pain nor other discomfort. When first discovered by the patient it is likely to be considered a dental abscess. If a tooth is extracted, the growth may progress by way of the tooth socket to invade the bone. In other cases, as the tumor enlarges it may interfere with the fit of a dental plate or removable bridge and the patient mistaking the effect for the cause, believe that the denture has provoked the lesion. Unless the growth invades the underlying bone through the tooth socket following extraction, the periosteum proves resistant for some time, and the tumor spreads peripherally into the cheek or floor of the mouth to form a broad, flat superficial ulcer several centimeters in diameter. In other cases, especially in tumors of lower grade, the periosteum resists invasion and the growth fungates into the mouth. After a period of several months the periosteum is finally perforated, and then bone is rapidly invaded and eroded with deep invasion of the mandible, and pathologic fractures. A growth in the lower gum may extend through the bone to the skin over the anterior surface of the mandible or submaxillary region. Such deep invasion of bone is usually associated with sepsis, both locally and in the submaxillary nodes, so there is a combination of inflammatory hyperplasia, local cellulitis, and metastatic invasion of the submaxillary, and upper cervical nodes. A combination of these various disease processes makes it difficult to determine the extent of the cancer."[1]

Extension of the Growth—In the present series there were eight cases in which bone erosion was roentgenographically demonstrable. There was one pathologic fracture of the mandible; one case in which the disease had spread to the floor of the mouth; one case where there was ulceration of the skin overlying the mandible; and one case where there was a leukoplakia on the buccal mucosa adjoining the lesion. It is stated by Martin[1] that when the growth has once invaded the medulla of the mandible, it may then progress for several centimeters before again appearing on the surface." Bloodgood[8] has stated that extension to the cheek gave a worse prognosis than extension to the floor of the mouth.

Johnson and Daniel[2] make plain that the primary lesion is in close proximity to bone, and invasion of the bone occurs very early."

Metastasis—The main drainage is into the submaxillary group (pre-glandular, pre- and retrovascular) where nodes involved first in about three cases, with only two cases occurring first in the sub-digastric region. The pre- and retrovascular lymph nodes lie very close to the primary lesion in cancer of the posterior lower gum, and in advanced cases the two foci of the growth tend to coalesce, and invade jointly the adjacent tissues. After involvement of the first "echelon" the disease disseminates to the middle and lower nodes of the jugular chain and to the viscera. Bilateral metastasis is practically nil."[1]

Systemic Metastasis—Martin[1] reports 35.7 percentage visceral involvement, and states that visceral dissemination occurs more frequently from cancer of the gum than from cancer of any other part of the oral cavity except the mucosa of the cheek. (36.3 per cent). In the present series of cases there was found no visceral involvement. Crile[9] states that in a study of literature pertaining to cancer of the head and neck it is shown that among 4,500 reported autopsies, in only 1 per cent was secondary foci found in distant organs or tissues. Ewing[10] states that metastases in the organs are rare, but have been observed in the liver, heart, adrenal, and mesentery.

Cause of Death—From the above statements it may be deducted that when death results from a cancer of the head or neck, it is because of local and regional development of the disease, not by distant invasion.[9] The usual exodus is that the floor of the mouth and tongue are invaded with metastasis or sepsis in the submaxillary lymph nodes, terminating in cellulitis of the whole submaxillary region. So death ensues from a combination of causes —exhaustion from pain, sepsis, malnutrition, and hemorrhage from the eroded mandibular artery.[1] One patient in this series died eighteen days postoperatively of uremia and without distant involvement.

HISTOPATHOLOGY — Since the pathology of epidermoid carcinoma is the same in all parts of the body, the presenting picture will not be discussed. However, it should be pointed out that in this series five of the patients were of grade I, two cases grade II, one case grade III, and four cases ungraded. In Martin's[1] group of 113 cases, grade II was predominant.

Diagnosis—Martin[1] states that a biopsy is an essential part of the management of intraoral cancer. Bloodgood[8] states, "It takes but a minute to remove a piece of tissue and to establish the diagnosis." Kirkham[4] says, "A section of the tumor may be necessary to complete the diagnosis." Thoma[5] says, "This is the most important examination in making the diagnosis." Bloodgood[8] states that in doubtful x-ray pictures, the tooth in the involved area can be extracted and the soft tissue attached to it subjected to immediate section and polychrome methylene stain. He also says that in the future we are to see the precancerous lesions of cancer of the gum more and more frequently, and the early stage of cancer of the gum when it can be recognized with the microscope only." The clinical appearance of the lesion may be confused with dental abscess, giant cell epulis, pregnancy tumors of the gums, vitamin B deficiency, fibrous epulis, leukemia, and miscellaneous benign tumors as papilloma, etc. It is stated by Geshickter[11] that usually the area of destruction, because of its irregular and worm-eaten appearance, and because of the absence of new bone formation, can be diagnosed as carcinoma in the roentgenogram.

Treatment—"Radiation, surgery and combinations of the two all have a definite place in the treatment of this disease." Martin[1] and Geshickter[11] stated that "carcinoma of the lower jaw like carcinoma of the upper jaw should be treated by cauterization and irradiation. The prognosis is equally grave." Erich[12] says "It is my opinion that routine block dissection of the cervical glands is indicated in most instances of epithelioma of the lower jaw whether or not the lymph nodes of the necks are clinically involved—in grade IV epitheliomas, the use of external irradiation to the neck may be preferable to surgical measures." Bloodgood[8] says, since the introduction of the cautery in 1910, "We have quite a large number of five-year cures in which the lesion on the gum of the upper or lower jaw has been removed with cautery, often with the help of the soldering iron and coagulation, after burning the tooth socket, the alveolar border was bitten away and the exposed remaining tissue was again cauterized. When the x-ray shows no involvement of the jaw, this method which preserves the continuity of the lower jaw gives just as good results as resection. When there is x-ray involvement of the lower jaw, resection must be performed and then it is always best to combine it with en bloc dissection of the glands of the neck." Kirkham[4] says the prognosis is very bad unless seen early, and an extensive radical operation is performed together with a complete neck dissection. Quick[6] says:

"1. A combination of radium, x-rays, and surgery offers the best means of treating epidermoid carcinoma beginning in the mucous membrane over the lower jaw.

"2. Radium, or radium and x-ray, is preferable to surgery in dealing with the diseases in the soft parts.

"3. Cases showing gross bone invasion should be treated by jaw resection followed by irradiation of the growth in the soft parts.

"4. Radium and x-rays offer a great deal of palliative relief.

"5. In the treatment of cervical lymphatics a combination of x-rays, radium, and surgery is preferable to a routine bloc dissection."

The above conclusions came from 113 unselected cases, seventy-four of which died, twenty-eight in whom contact was lost, and eighteen cases living, four of whom are free of recurrence better than five years, and one case free of recurrence after four years. Six of the cases had extensive bone invasion. Thirteen cases were still under active treatment. Johnson and Daniel[2] in 1943 reported 111 cases of intra-oral cancer, thirty of which had growths originating in the gums—two arose in the gum of the upper alveolus and twenty-eight cases began as ulcers on the lower alveolar margin. Five patients refused operation and with these the average duration of life after onset of symptoms was fourteen months. Six patients are alive and well four years after operation. Four cases who were operated died of recurrence thirteen months following operation. One death followed twelve hours after operation. One died in a mental institution three years after operation with no evidence of recurrence at the time of death. Four patients were given radiotherapy, and their average duration of life was 15.5 months as in comparison to 17.7 months received from surgery. All operative cases received postoperative radiotherapy. Crile[9] reports 224 cases of carcinoma of the buccal surfaces including lip, mouth, tongue, and jaw. The treatment is not altered for any one lesion in this series, so his figures are of no value to this paper. Martin[1] states that the survival of about 11 per cent of cases for five years in comparison to no survivals by surgery is a strong indication that irradiation is a more useful method than surgery in metastasis from cancer of the gum. He also says that neck dissection if used in gingival cancer should be limited to those cases in which the primary lesion is under a fair control and the nodes occur late in the course of the disease.

In the present series of cases for treatment of the primary lesion, three cases had unilateral resections, one had bilateral resection, five were treated with radiotherapy, two refused any form of treatment, and one lesion was excised with and including the periosteum of the mandible at the site of the lesion. For treatment of clinical metastasis which was present in five cases, three had upper neck dissections, one had a mandibular resection, and one had a radical neck dissection. The longest survival, twenty-eight months, was treated with radiotherapy. Five of the cases were treated with radiotherapy. Two of these are living—one twenty-eight months and one thirteen months, and without recurrences. Two died with duration of life after onset of treatment, seventeen months in one case and ten months in the other case. The whereabouts of one case cannot be unfolded. Five cases were treated surgically, four of whom are living (oldest being twenty-seven months and shortest eight months) and without recurrences with the exception of one case who has recurrence. One case died eighteen days postoperatively of uremia. Two patients refused any form of therapy. One of the patients who received no therapy died eighteen months after the onset of symptoms and one is living nine months after onset of symptoms. The average duration of life following onset of treatment and including either of the above described manners of treatment was 15.6 months.

Conclusion—It was my earnest desire at the beginning of this paper to correlate and establish a standard form of treatment for carcinoma of the lower gingiva, but frankly, I am of the opinion now that the treatment of this carcinoma is in complete agreement with its etiology and nothing of a striking nature has been proved.

BIBLIOGRAPHY

1. Martin, Hayes: Cancer of the Gums (Gingivae) Am. J. Surg. 54:769, 1941.
2. Johnson, G. S. and Danieal, R. A., Jr.,: Gum Cancer, Ann. Surg. 117;78, 1943.
3. Gaini, G.: La curieterapie degli epitheliomi gengivali, Radiol. Med., 1: 351, 1921.
4. Kirkham, H. L. D.: Tumor of the Alveolar Border of the Jaws, Texas State J. Med., 1: 351, 1921.
5. Thomas, K. H.: Cancer of Mandible, Am. J. Orthodontic, 24: 994, 1938.
6. Quick, D: Carcinoma of Lower Jaw, Am. J. Surg., 1: 360, 1926.
7. Johnson, F. M.: Certain Difficult Problems in the Treatment of Carcinoma of the Lower Jaw, Radiology 280, 1925.
8. Bloodgood, J. D.: Oral Cancer, J. Am. Dent. Assoc. 20: 1790, 1933.
9. Crile, G. W.: Carcinoma of the Jaws, Tongue, Cheeks and Lips, Surg. Gynec. and Obst. 36: 159, 1923.
10. Ewing, James A.: Neoplastic Disease, 1940.
11. Geshickter, C. F.: Tumors of the Jaws, Am. J. Cancer 24: 90, 1935.
12. Erich, J. B.: Cancer of the Jaw, Proc. Staff. Meet., Mayo Clinic 16: 77, 1941.

Cancer Control, A Doctor's Program

EDMUND G. ZIMMERER, M. D.**
Des Moines, Iowa

The increasing mass of cancer propaganda that reaches his desk, some of it promulgated by non-medical groups, makes the doctor increasingly conscious of the popular interest in cancer and its control. He notes the concern of governmental agencies and even professional societies in the establishment of tumor clinics and is aware of the endorsement given such activities by organized medicine. Perhaps he is invited to participate in the work of tumor clinics, at least to the extent of referring his patients. He may even be asked to speak at cancer meetings, often under lay auspices, and he may occasionally be embarrassed at sharing the platform with a glib lay speaker whose eloquence seems to put his own knowledge of the subject to shame. No wonder he sometimes asks himself where this will lead.

The need for state control of communicable disease has long been conceded. The official supervision of motherhood and of infancy, as in the EMIC program of the Children's Bureau, and even of the child of school age is accepted with more or less reluctance. The treatment of the venereal diseases under public auspices is acknowledged as the best means of controlling their infectiousness and preventing their spread. But the entry of public health into a field which deals with a condition not proved infectious and definitely shown to be noncommunicable, in which the incidence has been little influenced by treatment, seems to portend a ruthless invasion by the state into the whole realm of medical practice from pediatrics to geriatrics.

The program of cancer control was not organized by public health authorities, governmental agencies, or any professional group, but has evolved from a popular demand. It did not arise because of any revolutionary discoveries in either the prophylaxis or treatment of cancer, or even of any definite knowledge as to its underlying causes. It is the outgrowth of fear caused by the increasing incidence of cancer. When any condition rises in a quarter of a century from fifth to second place among the leading causes of death, it obviously becomes a matter of public concern.

Congress, in the first bill in history to be sponsored by the entire body of the United States Senate, took official cognizance of the popular sentiment in 1937 when it appropriated funds for the National Cancer Institute. The American Society for the Control of Cancer, now known as the American Cancer Society, Inc., was organized in 1901. At first it was a purely professional society whose membership included many leading physicians and pathologists. Later it enlisted interested laymen and more recently has extended its activities by establishing a Field Army which has undertaken a widespread program of lay education, always in coöperation with medical societies.

The first public health recognition of the cancer problem was in 1925 when a lay group headed by a prominent Catholic clergyman succeeded in securing an appropriation from the General Court of Massachusetts for the care of cancer patients. Thanks to the farsightedness of Dr. George Bigelow, part of these funds was used for the study of the preventive aspects of malignancy. Thus, Massachusetts became the first state to establish a program of cancer control. To date nine states have full time personnel engaged in this work, and all health departments are giving cancer control more or less attention.

---

*Reprinted through courtesy of Journal of Iowa State Medical Society and the American Cancer Society.

**Director, Division of Cancer Control, Iowa State Department of Health.

Hence, we behold an almost ideal setup for the solution of any public health problem. We have a widespread public interest, with press, pulpit, school, and every avenue of education willing and ready to do its part, a government anxious to give such aid as it can, state health departments everywhere giving it more and more attention, countless researchers aided by public and private funds carrying on intensive study in cancer genesis. All these, money, legislation, and organization, are helpless to accomplish anything without the willing coöperation and leadership of the doctors in the hospital, in the city, in the rural home, everywhere.

Obviously a completely satisfactory control program must await at least the discovery of the cause of cancer or a more thorough understanding of its nature, if not a specific remedy or some prectical prophylaxis. Physicians would be the first to recognize that we cannot wait till we know all about a disease to do something about it, that we must use available means and knowledge to the best of our ability.

Early and accurate diagnosis and prompt and adequate treatment are the keynote of our present program of control. Early diagnosis implies that the patient comes early to the physician and that the physician be qualified to act without delay. To that end it must be universally recognized by the public that cancer begins as a local disease and that while it is in that stage it is generally curable. We must strive to make all people alert to the early signs of malignancy and prompt in seeking competent medical aid. Here lay education is our most important available means. Such education must be neither technical nor detailed. It must be simple, easily understood, and above all, motivating. The facts about cancer must be disseminated in the school and home, in the family, and in social circles to be effective. Lay organization is of the greatest assistance in giving us an entrée to the very people most in need of education.

True, there are disadvantages to campaigns by unofficial and particularly lay organizations aside from their frequent lack of dignity, but their practical value has been amply demonstrated in the fight against tuberculosis, venereal disease, and infantile paralysis. Whether we like it or not, lay education in health matters seems best accomplished by campaigns, with balyhoo, posters, buttons, exhibits, and distribution of literature. Such programs can be better carried out under lay than professional auspices, but must be restrained and directed by ethical and experienced leadership.

The widespread interest and the alarm created by misrepresentation and ignorance of the truth about cancer offer a fertile field to the charlatan and the quack which can be combatted only by a unified and authoritative program of education. Education implies a general dissemination of knowledge based on accurate conclusions drawn from known facts. In cancer, as in other diseases, this involves statistical evaluation of a significant universe such as is more readily accessible to a public health department than any other agency.

Constant research and new discoveries contribute ever changing views as to the nature of malignancy, which must be quickly and carefully sifted to prevent the too ready acceptance of promised cures and yet make prompt use of these means which have merit for the suffering public. Only a centralized authoritative body close to organized medicine, the research laboratory, the hospital, and the clinician, and one which enjoys the confidence of the physicians and the public alike, can coordinate the conflicting trends of thought to avoid inconsistency. Only such a body can sontrol and direct lay activity in health matters and coordinate them to professional guidance.

The function of the health department, then, continues to be that of correlator and liaison between the public and the physician. Its objectives cannot be attained without the confidence and coöperation of all agencies concerned, and least of all without the good will and active support of the doctor. Indeed, "the doctor is an integral part of the plan of public health administration just as the lawyer is part of his court."[1]

We cannot shut our ears to the cry of the public that something be done about cancer. The people have spoken and in a democracy "the people should have what they want, but they must be protected from exploitation. They should have a voice with their physicians in the administration of their health programs."[1] They need and desire medical leadership, and nothing is gained but much is lost by our refusal to give it.

---

1. E. W. Rowe, Better Health, Nebraska State Department of Health.

In the program of cancer control the doctor is the key man. On his degree of suspicion, upon his ability to recognize precancerous or early lesions, upon his recommendations depend not only the success of the program but, more important, the life or death of the individual. The first doctor seen by the cancer patient has more to do with the ultimate outcome of the case than the surgeon, radiologist, specialist, or clinic. Such responsibility imposes the obligation of being informed and competent or at least willing to seek competent consultation.

Unfortunately, too many doctors still have an ingrained pessimism regarding cancer that is not justified by the facts, and which reacts to the detriment of their patients. Almost 40,000 five year cures of definitely authentic cases of malignancy in the archives of the American College of Surgeons attest the curability of some cancers. Optimism is an important corollary to cancer control.

Delay in the treatment of cancer is dangerous. If the delay is due to the patient's ignorance or fear, it is bad enough; but if it is due to the doctor's carelessness or incompetence, it is practically criminal. The doctor's attitude plays an important role. If he makes light of a lesion, the patient will not regard it seriously either, and if he is instructed to return for further examination at some indefinite time he will be apt to postpone or neglect action until it is too late.

On the statistical basis it may be presumed that one in every 133 patients seen by a physician in Iowa is a cancer patient.[2] That more cases are not dignosed may be due to the low degree of suspicion on the part of the physician or to his indifference to preventive medicine. If he is consulted for a cut finger or a sprained ankle, he does not bother to question his patient about the apparent leukoplakia on his lip. In this age of specialization, we are drifting from the beneficial habits of the old family doctor. Preventive medicine not only rebounds to the patient's advantage but is remunerative as well.

Temporization with lesions of skin cancer is a common cause of delay that can be attributed to doctors.[3] Irregular uterine bleeding is often charged to menopause and the doctor is too reticent to make a speculum examination. Even more common is our ready acceptance of the patient's own diagnosis of piles and neglect to make a simple examination. In fact, most of our mistakes are due not so much to our inability to recognize signs as to our failure to look for and find them.

The educational program of the Field Army stresses the importance of periodic physical examinations, but unless such examinations are thorough they not only fail to discover early cancer and save life but serve to discourage the patient and discredit the whole program. A mere history, taking of blood pressure, a casual auscultation of the chest, and a urinalysis will not always reveal cancer or permit us to give the examinee a clean bill of health.

The following points in the examination of an individual for cancer are suggested as being essential:

Examination of the lips, tongue, cheeks, tonsils, and pharynx for persistent ulceration, especially in the presence of a history of hoarseness or persistent coughing. In the latter case, a roentgenogram of the chest may be needed. Examination of the skin, of the face, body, and extremities for scaliness, bleeding warts, black moles, and unhealed scars.

Examination of every woman's breasts for lumps or bleeding nipples.

Examination of subcutaneous tissue for lumps on the arms, legs, or body.

Investigation of any symptoms of persistent indigestion or difficulty in swallowing and palpation of the abdomen.

Examination of lymphatic system for enlarged glands, especially in the neck, axilla, or groin.

Examination of the uterus for enlargement, laceration, bleeding or new growths; bimanual examination to determine condition of ovaries and tubes.

Examination of rectum, always important even in the absence of symptoms.

Examination of urine for blood.

Examination of bones and a roentgenogram of any bone that it the seat of pain.

Examination of blood.

Careful examination and a roentgenogram if indicated when the history or physical findings point to abnormality in any other organ or tissue.

---

[2] Luis I. Dublin, Metropolitan Life Insurance Company, Letter of November 7, 1943.

[3] Connecticut State Department of Health.

Biopsy, while ordinarily not a difficult procedure, is one of utmost value in confirming the diagnosis but should not be rashly done. In general, it should be made on the advice of and in consultation with the pathologist.

The diagnosis and treatment of cancer are always of grave importance—too grave most times to depend on the judgment of a single individual no matter how competent he may be. No matter what the physician's professional qualification, he cannot hope to recognize cancer in its every possible manifestation; and if he could, he would not be able to recommend appropriate treatment in every case. Thus, "Cancer has ceased," as Ewing says, " to be a one man job." Tumor clinics divide responsibility, make for earlier, more accurate, and definite decisions in diagnosis and treatment, and encourage better training in both the recognition and therapy of cancer. Tumor clinics may be established by county medical societies in coöperation with the State Department of Health. A subsequent article will deal with their organization, benefits and use. Thus far four are active in Iowa.

Reference to a tumor clinic does not exclude the patient's own physician. On the contrary, it enhances his position. No patients are accepted unless referred by a physician. The personnel of the clinic is selected by the local medical socity. The referring physician is invited to participate in the examination and discussion of the case. All reports and treatment recommendations are made to him and he alone determines whether they shall be carried out, and where and by whom.

The minimum obligation of the individual physician to the program of cancer control is that imposed by his professional responsibility and common humanity, to make himself competent. He must be suspicious of malignancy in every obscure case. He should be alert to the earliest, even precancerous manifestations of the disease. He should have available laboratory, x-ray, and other diagnosis facilities and be ready to seek competent consultation. And withal he should develop a reasonable optimism regarding the outcome of cancer therapy.

As a group, the profession can contribute to the training of its members. Cancer therapy, despite the fact that we still do not know all about the disease, is not static. Amazing advances have been made in recent years, especially in cancer of the breast, uterus, mouth, the buccal cavity. The medical society should have an active cancer committee whose function it is to bring modern thought on the subject before the society by means of frequent papers, symposia, and the like. It might well consider the establishment and maintenance of a tumor clinic. One of the principal benefits of the clinic is its professional training. Doctors should be encouraged to attend its clinical sessions, and frequent clinicopathologic conferences should be held.

The committee could develop higher standards of service in the community by urging more thorough examinations of potential malignancies, emphasizing the important steps in a complete physicial examination, pointing out the value and dangers of biopsy, securing better records so that treatment methods can be better evaluated. A precise history and definite diagnosis are indicative of the quality of professional care the cancer patient is receiving. The same committee might well check on unorthodox treatment or unauthorized practice in the community.

If the doctor or the medical society desire to extend their activities beyond the range of purely professional interest, they might properly consider the arranging of law meetings for the extension of health education to the public and coöperation with interested agencies. Professional activity is lagging far behind public interest in cancer. Apathy, jealousy, and personal prejudice must not blind us to the prevailing trends in preventive medicine. The doctor's place in this as in every program to fight disease and promote health is in the forefront. His leadership is desired and welcomed. The public and the state recognize their dependence on the doctor; without him there can be no effective progress in any public health activity.

The program of cancer control, born of need and of fear, is no exception. The program is not state medicine. It is not a lay project. It is and must be and always shall be a doctor's program.

> Atheism is rather in the lip than in the heart of man.
>
> —FRANCIS BACON

Penicillin for Venereal Disease

An Editorial by Morris Fishbein, from December 1945, *HYGEIA*

SINCE penicillin is now generally available throughout the country, great danger exists that people who may try to treat themselves by taking penicillin by mouth, may really do themselves more harm than good. The National Research Council warns against self-treatment with penicillin for the venereal diseases. For more than two years the various ways in which penicillin can be used in treating gonorrhea and syphilis, and the dosages necessary for successful treatment, have been studied in the large clinics of the United States. The research was coördinated by the Committee on Medical Research of the Office of Scientific Research and Development, and officers of the U. S. Army, Navy and Public Health Service coöperated in the investigations.

Now it has been established that penicillin practically always cures gonorrhea — sometimes called a dose, or strain or clap — in one day, provided that the drug is given in sufficient amounts. However, people who have had penicillin treatment for gonorrhea should have their blood tested by the Wassermann or Kahn tests or some of the other tests for syphilis for several months after to make sure that they were not infected at the same time with syphilis. The small doses of penicillin that are used for gonorrhea do not cure syphilis. Sometimes they serve to cover up or mask the presence of the syphilis by stopping the seriousness of the symptoms without controlling the disease. Although penicillin at this time seems to be the best, safest and quickest method of treatment now available for syphilis, the ways in which it can be used for all of the different forms of syphilis are still under investigation. The value of the drug in recent infections with syphilis has been established and it has been proved that the earlier a patient gets treatment, the better his chances of cure. Penicillin is also valuable in preventing syphilis from appearing in unborn babies by giving the treatment to infected, expectant mothers. Penicillin has proved useful in checking some of the late forms of syphilis, such as that which attacks the brain and the spinal cord, and diseases like general paresis or softening of the brain and locomotor ataxia, which are also due to the organism of syphilis.

Fortunately, penicillin is a non-toxic drug when compared with arsenic, bismuth, mercury and some of the other drugs previously used in treating syphilis.

In its report, the Committee on Venereal Diseases of the Division of Medical Sciences of the National Research Council provides also some words of caution. Because of the character of the venereal diseases, the committee does not yet advise treatment of syphilis with penicillin given by mouth. Injection of the drug into the muscles is certain in getting penicillin into the tissue. The injections must be given, however, every two to four hours, day and night, for periods of time as long as 7½ or 8 days, and sometime even longer. In some cases of syphilis which are especially severe or which have lasted for a long time, arsenic, bismuth or the fever treatment must be used together with the penicillin, or after the penicillin treatment, in order to make certain that the disease is fully controlled. People who have had penicillin treatment must be checked again and again by complete examination and by use of the Wassermann or similar tests in order to make certain that they have not relapsed. In cases in which the disease does show up again, it is necessary, of course, to repeat the treatment.

Experience in the large clinics has shown that the blood test may not become negative after penicillin, or any other form of treatment, particularly when patients have had the disease for a long time. It is not essential, however, that the blood test become negative in such cases for the disease to be fully controlled. Failure of the test to become negative right away should not discourage the patient.

Remember, however, that it is never safe for any one to treat himself for syphilis with penicillin or any other drug in any manner. When the doses of the drug are too small, when the timing of the treatment is irregular or unsatisfactory, or when treatment has not been given for a long enough time, such self-treatment may be more dangerous than no treatment at all.

While medical science has made a tremendous advance against syphilis and gonorrhea so that it seems possible now to promise that one day venereal diseases may be as fully controlled as are typhoid fever and diphtheria, research has not stopped.

The Mississippi Doctor

Published monthly at Booneville, Mississippi. Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

W. H. ANDERSON, M. D. .... Editor-in-Chief
MILDRED P. ANDERSON ...... Assistant Editor

David E. Guyton, Blue Mountain College .... Poet

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.
A. F. Cooper, M. D. .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

E. M. Holder, M. D. C. R. Crutchfield, M. D.
F. M. Acree, M. D. H. King Wade, M. D.

Lawrence W. Long, M.D.
J G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

JUST ANOTHER INCIDENT

A few months ago there was a nationwide furor over the bureaucratic shortcomings of the Veterans' Administration. Shamefully inadequate and obsolete practices were exposed in the veterans' hospitals. But the rush of events quickly pushed the incident onto the back pages. And, like many such incidents, the public has heard no more.

Here is a typical illustration of what would happen if the whole country should be included in a politically administered medical system. Individuals would be subjected, as the veterans were and perhaps still are, to questionable or incompetent care. As individuals, they could do nothing more than vent their displeasure. Trying to ferret out officials responsible for ill treatment would be akin to grappling with one's shadow. When the situation became bad enough, a rash of condemnation would appear in the press. Investigation would be promised—as they were in the case of the Veterans' Administration—a few of the most glaring faults would be corrected, and then the evil system would settle down for another twenty years or so of dozing dogma and inefficiency.

This is no exaggeration. It is what would be faced by the people if they permit state or socialized medicine, whichever you wish to call it, to settle upon the country. It is the normal procedure of bureaucracy.

WITH GOOD WISHES

As we come to the last of the old year and the first of the new, we are very grateful to all of the friends of the journal, to every reader, to every subscriber, to every advertiser, and to every doctor who carries a courtesy card. For two years our road has been exceedingly hard and it is yet, but we hope for a better day. You have been patient and considerate and this we appreciate.

The aim of this journal is better medical service for our state and our nation. It owes its growth and what measure of success it has achieved to the support of loyal friends. May we continue to merit your help and your friendship.

We offer our deepest sympathy to Dr. J. S. McLester of Birmingham, Ala., in the death of his beloved wife on December 8, 1945. Dr. McLester was to have appeared on the program of the Northeast Mississippi Thirteen Counties Medical Society at Tupelo on Tuesday, December 11. He is a past-president of the American Medical Association and is well known throughout the nation. As an essayist he is always interesting and informative.

On January 7, 1945, at the Heidelberg Hotel the civic clubs of Jackson and the members of the legislature will have as their guest speaker Dr. Seale Harris of Birmingham. The four-year medical school will be the topic of discussion. The civic clubs will have the members of the legislature as their guests. No better man could have been found in the nation than Dr. Harris to address this body and to lead the discussion on this important question. He breathes the spirit of Southern medicine, he is a well informed progressive citizen, and a

Christian gentleman of the first order. Mr. Hayden Campbell is chairman of the United Committee. This is a most important meeting.

§

The profession sustained a great loss in the death of Dr. W. A. Toomer of Tupelo. He was an able practitioner and in addition he gave special attention to tuberculosis. He was really a war casualty. His health had not been good for some time. What he could do with safety was limited, but duty called and he did not falter; the urge to serve forced him onward and he carried on unto the end. It was the same spirit with which our boys died on the field of battle; if any difference, there was a greater love for service, since he did not have to go by military order. Deepest sympathy goes out to the family.

§

The Southeastern Surgical Congress will hold its session in Memphis, March 11, 12, and 13, 1946. This meeting should be well attended. The Southeastern Surgical Congress furnishes one of the very best programs of any medical or surgical organization in the United States. Make ready now to attend this meeting.

§

Everyone favors a bigger and a better hospital system for our state. The people are becoming more hospital-minded. But of course the headstone of a good hospital system should be a good four-year medical school that has the vision to carry medical service by way of the hospitals to all the people of the state. First class medical service was applied in the jungles on the firing lines in the war, and to say it can not be carried to every farm house in our state, put in reach of every person needing it, is to admit the lack of vision, of courage, and of application. The application of medical service is too valuable to be blocked by the selfish dollar mark. We have some people, a few, who honestly think Mississippi does not need a four-year medical school.

§

Dr. J. Rice Williams of Houston, Miss., was elected president of the Northeast Mississippi Thirteen Counties Medical Society for the coming year. No doctor in our state is more loved and revered by the profession than Doctor Williams. He is the embodiment of medical integrity, a lover of justice, a very versatile man is knowledge, and profound in wisdom. He is a diplomat creditable to any nation. His faith in the triumph of the right is deep, his courage is strong, and his heart is kind. He has been speaker of the house of delegates of the Mississippi State Medical Association for a number of years. In this capacity he has rendered fine service for the Association. He possesses a sincere mental honesty that leads his mind to follow truth to the end, which warrants his being very able in his chosen specialty. It is exceedingly good to claim him as a friend and to feel the inspiration of his fine Christian personality.

§

It seems now from the studies on the alcoholic problem in the United States that about eighty per cent of the people consume alcohol as a beverage and that the average per capita expenditure of those so doing is about one hundred dollars per person. The total bill for the alcoholic beverage is therefore about eight billion dollars per year, four times as much as is spent on all church work we are told. Just saying that forty per cent of the people in Mississippi use this beverage and that their consumption is eighty dollars average per person, we should have a bill of around thirty million dollars in Mississippi per year. The total cost to human society would be about ten times this much when everything is considered. Anyway we are planning a road program, and wisely, which will cost sixty millions and we think it is big. This is only twice our whiskey bill. Still we stagger and go blind at the thought of putting up five million dollars to put into operation a first-class medical school to save the lives of people, to help them live longer and more useful lives.

§

Some recent investigations were made in some industries. It was found that there were more accidents between eleven and twelve o'clock than any other time. A study was made to find the cause of it. It was concluded that it was largely due to the workers coming to work without their breakfast. It was found that many rode twenty to forty miles to their work, that a large percentage had only a cup of coffee, many had just coffee and toast, not many had a regular breakfast consisting of a cereal, toast, egg, and fruit. By eleven o'clock they began to become nervous and exhausted; hence, the accidents.

After thorough study along this line it was concluded that a person should have at least one fourth of his food if not one third at breakfast, and that a regular well-balanced diet of good food and enough of it makes for mental efficiency, for vigor, strength and endurance. This is a most important revelation. Everyone should heed the advice, especially factory workers, any workers around machinery, any who must be efficient. These revelations should certainly be applied to school children. The responsibility is upon the teacher as well as the home.

§

Whiskey as a medicine has its small field perhaps, but as a beverage, its consumption is incompatible with the machine age in which we live—wherein lies the doctor's challenge and opportunity to human civilization.

§

The color of Mississippi's population is destined to make a rapid change. The dark cloud of the Delta is moving to the North and to the East. Thrifty whites will take their place as we balance industry with agriculture, as we make timber growing a major crop and advance dairying and stock raising. This will make an economic difference in favor of a four-year medical school.

§

The malaria carrying mosquito has brought a longstanding challenge to the medical profession, but her days are now numbered and this disease which has taken such a high toll in human life is on its way out.

§

Federal aid for the lower income bracket for hospitalization and for medical and surgical fees is much better than to have fastened upon us the Wagner bill in all of its damaging ramifications. Personal effort should continue to be inspired by meritorious service and the patient-doctor relation should be guarded as human life.

§

Be sure to do the brotherly act by your brother in medicine as he returns from the battle-field to civil practice. He will appreciate a favor and it will enlarge your own soul.

§

Health foundations for health centers should be the order of the day in our state, especially for the small town.

As a rule if you wish to secure the best nurse available, find one trained in a twenty-five to one-hundred-bed hospital.

§

The discoveries of healing science must be the inheritance of all. That is clear. Disease must be attacked whether it occurs in the poorest or the richest man or woman, simply on the ground that it is the enemy; and it must

§

FROM DR. BRYAN

Within the last ten days I have had many visitors from the doctors of the state. These hours will be remembered by me so long as memory lasts. I will mention Dr. Charlie Murry and Dr. W. L. Little. These friends travelled long distances just to gratify me. I hope that they got some pleasure from their visit. Also the Monroe County Society met in my home. A rather full attendance marked the meeting in spite of the downpour of rain turning to snow. Since I can do nothing but sit and think, I have ample opportunity to recall many happy hours I have spent with my dear friends among the doctors of the state and outside territory. I repudiate the thought that "Friendship is nothing but a name," and that friends are to be lightly held. Friends are, indeed, my greatest treasure. Of these I can not be bereft except by some mistake of my own or by the reckless tattle of some jealous tongue. My greatest consolation is that, to my knowledge, I have not an enemy in the world. May God grant that I may never have.

Well, the time is not so very long until we shall know what our legislators think as to the propriety or necessity of having a four-year medical college in Mississippi. I had, to the best of my ability, tried to analyze the situation and had decided that such a college and an increased number of hospitals would greatly benefit our people. I had decided, too, that I would try to aid in getting the people to see and appreciate this fact. But the fates decreed otherwise. My health gave way on the fourteenth of last January. Since then I have not been able to do or say anything that might contribute help to the undertaking. I shall not state my reasons for deciding as I did on this question. I trust that our representatives may not fail to grasp the bigness of the matter or be influenced by those who are wholly ignorant concerning it or who are niggardly in their approach to the question. We are now a rich state and will grow richer rapidly. Our population is destined to increase rapidly, both in the rural districts and in the urban sections.

With a Howdy-do to all my friends and a sincere wish all the good things in life may come to you, I am,

Your friend indeed,

G. S. B.

News and Comment

TENNESSEAN IS NAMED A.M.A. PRESIDENT-ELECT

CHICAGO, Dec. 5.—(UP)—Dr. Harrison Shoulders, Nashville, Wednesday was named president-elect of the American Medical Association.

The A. M. A. house of delegates elected Dr. Shoulders after the installation of Dr. Roger I. Lee, Boston, as president of the association. Dr. Lee will serve during 1946 and will be succeeded by Dr. Shoulders at the delegates' annual meeting next December.

* * * * *

Keenly aware of the American health problem—how to provide the people with medical service commensurate with the capacities of modern medical science—the American Medical Association has chosen a Nashville physician and surgeon to guide its efforts to meet the challenge.

Dr. Harrison H. Shoulders will become president of the association next year. For the past eight years he has been speaker of the house of delegates of the organization, and at all times, since early in his career, he has accompanied his work in the field of medical inquiry and service with a lively interest in the group activities of his profession.

The Tennessean's rise to prominence in medical circles began with his return from overseas service with the army medical corps in World War I. He otherwise has been connected with public health work as secretary and executive officer of the State Department of Health and at a later date as president of Nashville General Hospital. In private practice in Nashville since 1921, he has earned wide note and respect.

Under rising social pressure, the AMA still is seeking an answer to the health needs of the American people. Its president-elect will have an opportunity as well as the task of leading his organized profession toward a happy solution of the problem, which will insure the widest possible benefit of the preventive and remedial discoveries that continually enrich the medical knowledge of the race.

The Nashville Tennessean

The above news will be received with pleasure and approval by the doctors of the mid-South and the nation as well. Doctor Shoulders has served well as speaker of the house of delegates of the Americal Medical Association. In this capacity he was able, smooth, and diplomatic. His alertness of thought and easy flow of well chosen words with a pleasing voice fits him well for the fine piece of work he has been doing. He well deserves this, the highest medical honor in the world, and he will serve well.

The Northeast Mississippi Thirteen Counties Medical Society held its fourth quarterly session at Tupelo on December 11. The Calvary Baptist Church was the meeting place. Dr. W. J. Aycock presided as president with Dr. W. H. Cleveland as secretary. Two of the four essayists were absent because of sickness, Dr. J. S. McLester of Birmingham and Dr. W. L. Stalworth of Columbus. Dr. A. J. Stacy, Jr., read a paper, "Epidemoid Carcinoma of the Lower Jaw," and Dr. John Dwyer presented another, "Varicose Veins." They were splendid papers.

Twenty-five doctors were present at the scientific session which it is believed is the smallest attendance for the last quarter of a century.

ANNOUNCEMENT

DR. THOMAS E. WILSON
announces
his return to private practice

INTERNAL MEDICINE
and
CARDIOLOGY
Medical Clinic Bldg.
910 North State Street, Jackson, Miss.

COLORED PHYSICIANS MEET

The Northeast Medical, Dental, Pharmaceutical and Nurses' Society met at the office of Dr. L. L. Rayford in Grenada for a program on syphilis and a round-table discussion of respiratory diseases.

Following the scientific session a banquet was held, with eleven doctors attending. The next meeting will be held in Corinth.

Nurses

Did you know that for the first time in history, President Jefferson Davis of the Confederate States of America, issued an army commission to a nurse? The estimable lady was Miss Sally Tompkins, who to a great extent and by her own efforts established a hospital in the capital of the Confederacy, Richmond. Later when it was taken over by the government, she was made a captain in the regular army and continued in full control over her hospital.

Among other noble and unselfish women of the South during the War between the States was Mrs. Ella K. Newsom of New Orleans, who exercised much care in establishing relief societies which did nursing they could among the Confederate sick and wounded. It is recorded that she received instructions in Memphis.

Clara Barton was another woman who became famous during this period of American history, nursing the wounded, securing supplies and aiding the needy everywhere, and subsequently becoming the founder of the American Red Cross. The usefulness of this great organization is as the field it covers, world-wide.

On June 22, 1944, President Roosevelt signed an executive order making the Army Nurse Corps an integral part of the army, the personnel to receive the same pay and prerogatives as other officers. On this date there was approximately something over 40,000 nurses.

L. L. MINOR, M.D.,
Box 348, Route 4,
Memphis, Tennessee

I don't know who my grandfather was; I am much more concerned to know what his grandson will be.

Deaths

DR. WILLIAM A. TOOMER

Dr. William Arthur Toomer, prominent Tupelo physician, died from a heart attack in the Community Hospital at 1:40 a. m. Thursday, November 22. He was 62. Services were held at his home the following morning.

Survivors include his wife, Ruth Gaither Toomer, and daughters, Mrs. R. D. Bowles, Isola, Miss., and Mrs. F. L. Spight, Jr., of Tupelo, and four grandchildren.

Dr. Toomer was born in Clay, Miss., Oct. 12, 1884. He was the son of the late William Toomer and Mary Spencer Toomer. Mrs. Toomer and he were married Nov. 17, 1913.

Dr. Toomer was a graduate of the University of Louisville, Louisville, Ky., in 1909. He practiced in Tupelo from 1915 until his health broke and he spent several years at Sanatorium. Returning to Tupelo in 1939, he resumed his practice there where he was one of the town's best loved physicians until his death.

DR. CHARLES HESTER

Dr. Charles F. Hester of Newton, died Tuesday afternoon, December 11, at a Meridian hospital, where he had been confined for treatment only a few days. Even though he had been in ill health practically all this year, his death came as a shock to relatives and friends.

Dr. Hester was a native of Neshoba County, having been born on April 15, 1884, a son of the late Frank and Eliza Jane Murphy Hester. He had resided in Newton County for ten years.

He was a graduate of the University of Tennessee. He serviced the Indian Reservation at Conehatta since his return to Mississippi from Texas, where he formerly resided. Dr. Hester was a member of the Newton Methodist Church.

Surviving Dr. Hester are his wife, Mrs. Mable Jane Peters Hester, Newton; five brothers, Will, Tom, and Algie Hester, all of Union; A. G. Hester of Lytle, Tex., and a number of other relatives.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—James G. Thompson, Jackson.

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—J. F. Lucas, Greenwood.

Orthopedics—Thomas H. Blake, Jackson.

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—Karl O. Stingily, Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

PEDIATRICS

CONVULSIONS IN INFANCY AND CHILDBIRTH — O'Neal, Gerald C., *Nebraska State Medical Journal,* 30: 207 (June) 1945.

The author is correct in saying "Convulsions may occur as a symptom in a large number of diseases in infants and children. In the study and treatment of any patient suffering from this symptom, it is highly important to approach the problem with the determination to find if possible the underlying cause.

"The differential diagnosis of convulsions in infants and children requires the consideration of a great number of etiological possibilities. In this presentation, only the more common and more important etiological factors will be mentioned.

"Birth to One Month of Age—During the first month of life, a large percentage of convulsions is caused by intracranial birth injuries. Babies who have been subjected to difficult labors and deliveries are apt to be victims of this type of injury. Symptoms of intracranial hemorrhage may be present at birth or may not appear for several days, depending upon the severity of the bleeding and its position. Feeble cry, excessive somnolence or irritability, and failure to nurse are symptoms to arouse suspicion of this condition. Cyanosis, irregular respirations and nystagmus are usually present before convulsions are seen. Rigidity of the spine and opisthotonos are often present and a tense fontanelle is common. Muscular twitchings and paralyses may be seen in any muscle or group of muscles, and often precede a generalized convulsion. Localizing signs are not of too great significance in early life, but should be investigated thoroughly to rule out a subdural hemorrhage.

"Examination of the cerebrospinal fluid is often an aid in diagnosis. The cerebrospinal fluid in intracranial hemorrhage usually shows blood, particularly crenated red blood cells.

"Treatment should aim at controlling further hemorrhage and at reducing increased intracranial pressure if causing definite pressure symptoms. The former may be accomplished by the administration of vitamin K and by intramuscular injection of blood. A minimum amount of handling and quiet are requisites for lessening bleeding. Reduction in increased intracranial pressure is favored by repeated lumbar punctures, but it should be realized that indiscriminate punctures may produce further bleeding after it had been stopped by the increased pressure. Sedatives for the control of convulsions in intracranial hemorrhage should be used judiciously because important localizing signs or symptoms may be obscured.

"Cases showing convulsions may be treated with sedative drugs, such as, phenobarbital in small repeated doses."

It is stated that "Third in importance in causing convulsions during the first month of life is the group of acute infections. At this period of life, upper respiratory infections and intestinal infections head the list. Urinary infections are often overlooked because of infrequent urine examinations. Many other acute infections obviously occur at this time of life but they are not common.

Tetany of the newborn is probably more common than is realized.

"During pregnancy hyperplasia of the mother's parathyroid glands may occur, causing a hypofunction of the fetal parathyroids. After birth the lack of parathyroid hormone permits a low blood calcium to develop with ensuing symptoms of tetany, particularly convulsions. Lack of urinary calcium, which can be readily tested for, is suggestive of low blood calcium, but the diagnosis must rest on actual blood determinations indicating a blood calcium level of 8 mg. per cent or less.

"Hypoglycemia of the newborn occasionally produces convulsions. While more apt to occur in infants born of diabetic mothers, it may occur in any infant. Studies show that the blood sugars of all newborn infants drop to low levels during the first few days of life. These low levels ordinarily do not produce symptoms, but if some other factor causes further depression of the sugar level symptoms can readily develop. It might be well to keep this possibility in mind, and, in the event blood sugars cannot be determined, give a convulsive infant glucose solution either by mouth or parenterally.

"One to Four Months of Age—In this age group the majority of convulsions result from acute infections. Febrile illness of all types is frequently ushered in by convulsions. The convulsions of pyrexia are as a rule transitory and not a grave significance. The diagnosis of febrile convulsions depends on the presence of fever, general toxemia and signs and symptoms of an acute infectious process.

"Treatment is first directed toward the seizure and as a rule simple measures are effective. A cool or tepid sponge bath will usually reduce the temperature several degrees, as will also a thorough irrigation of the colon with lukewarm water. If the reduction in fever fails to stop the seizure, sedatives should be given. Intramuscular injections of a soluble barbiturate may be given, but, usually one of the barbiturates, such as seconal or nembutal, given rectally will suffice. These barbiturates are conveniently and quickly given in capsule form. The capsule should be perforated at both ends, moistened with water and then inserted into the rectum. These drugs given rectally usually take effect within 10 to 20 minutes and may be repeated in one hour if necessary.

"Four Months to Two Years of Age—Tetany, while much less common today than 10 years ago, is still an important cause of convulsive seizures in this age group. The majority of tetany cases are due to rickets. Less common causes of tetany are excess alkali administration, excessive vomiting, hyperventilation and parathyroid insufficiency.

"The characteristic physical sign of tetany is carpopedal spasm. It is frequently accompanied by laryngospasm. Generalized convulsions may or may not occur.

Calcium may be given as a 10 per cent solution of calcium gluconate intravenously or intramuscularly. Three or four grams may be required to stop the convulsions.

"Two Years to Six Years of Age.—In this age group, almost all etiological factors causing convulsions must be thought of. A number of less commonly thought of causes deserve mention.

"Lead poisoning is occasionally seen, and is usually due to the child's eating lead-containing paint from furniture and toys.

"Treatment consists of controlling the convulsions by heavy doses of sedative drugs, and lessening the cerebrospinal fluid pressure by repeated, or continuous lumbar drainage.

"Strychnine poisoning may be met with and is usually due to ingestion of candy-coated cathartic pills containing the drug. Strychnine poisoning is acute, symptoms appearing within an hour after ingestion. Tonic spasms and opisthotonos occur, but the mind remains clear. The muscle contractions are interspersed with intermissions during which the muscles are completely relaxed, an important differential point when considering tetanus. The slightest stimulation is likely to set off a violent spasm. If the convulsions cannot be controlled, death will soon follow from respiratory failure and exhaustion.

"Treatment consists in stomach pumping at once and then in controlling the convulsions by means of sedatives in large doses. Sodium amytal intravenously to the point of anesthesia is the drug of choice. The prognosis is good if the child survives the first six hours.

"An important cause of convulsions in young children is acute nephritis. The diagnosis is made on the urinary findings, and there is practically always an associated elevated blood pressure. Intramuscular or intravenous magnesium sulfate is the drug of choice in treating the convulsions. Magnesium sulfate effectively relieves the arterial spasm which apparently causes the cerebral symptoms. Magnesium sulfate may be given intramuscularly as a 50 per cent solution. Two-tenths cubic centimeter of this solution per kg. of body weight may be given four hours until the blood pressure is definitely lowered and the convulsions have stopped.

Encephalitis is not to be overlooked in children presenting convulsions. Encephalitis may occur as a primary disease as well as secondary to certain virus diseases, especially measles, mumps, chickenpox and smallpox vaccinations. Pertussis is a frequent cause of convulsive seizures. Pertussis may cause convulsions by an encephalitis, by intracranial hemorrhage, by alkalosis induced by vomiting or by asphyxia accompanying the paroxysms. The treatment of the symptoms of encephalitis is symptomatic. Convalescent serum in the secondary types of encephalitis is theoretically of value and should be given. The various types of meningitis can be diagnosed only by spinal fluid examination and culture. With the exception of tuberculous meningitis practically all forms of meningitis should be treated with either sulfonamides or penicillin, and in some cases by a combination of these two agents.

"Six to Fourteen Years of Age.—After the sixth year idiopathic epilepsy is found as the most frequent cause of convulsive seizures. Idiopathic epilepsy is a diagnosis which should be reserved for those convulsive cases for which no organic or physiological basis can be demonstrated.

"The treatment of epilepsy is directed toward decreasing the irritability of the central nervous system. Sources of chronic or acute irritations, bad habits, and mental stresses are to be sought for and removed. Good physical hygiene is important.

"The ketogenic diet plus fluid restriction and a low salt intake is effective in controlling some epileptic patients, but it is difficult to keep a child on such a régime. In most cases of epilepsy, reliance must be placed on drug treatment for the control of seizures. Phenobarbital is still a good drug in epilepsy, but dilantin is meeting with more and more favor. Often a combination of these two drugs gives the best results. The dosage of these drugs varies from ½ grain to 1-½ grains, two to four times a day."

COMMENT

This is a most valuable article and should be carefully read by every physician under whose eyes it may fall. The author has evidently had a great deal of experience as well as good training and can be relied upon in the suggestions listed in this article. However, we would issue a word of warning about too frequent spinal punctures in infants. In our opinion there has been much damage done by spinal puncture and there are still two schools of thought relative to the value of such procedure; one of which urges spinal punctures to relieve pressure to stop convulsion and the other, when the pressure is lessening, the hemorrhage will again reoccur and the pressure is nature's means of stopping the hemorrhage. At least this is food for thought to anyone having a newborn with convulsions.

The time honored treatment of giving blood intramuscularly and vitamin K at the very first symptom of convulsion in the newborn is still of great importance. As a preventive measure it is good practice to give the mother vitamin K at the time of the beginning of labor or before, and give the baby vitamin K immediately after birth in all cases.

SURGERY

BAILEY, O. T., INGRAHAM, F. T., ET. AL., "HUMAN FIBRIN AS A HEMOSTATIC AGENT IN SURGERY." *Surgery* 18: 347-360, 1945

From the newer knowledge of the components of normal human plasma and their interrelationships in the mechanism of blood clotting, there has logically developed the first great advance in the attainment of hemostasis since the perfection of the hemostatic suture and ligature.

The authors report in detail certain experimental work which has established the technique on a firm basis, and they report subsequent clinical trials in conditions formerly fraught with danger to the patient.

The materials used were a preparation of thrombin, a preparation of fibrin, and a preparation of absorbable (oxidized) cellulose. The fibrin and cellulose were used to hold liquid thrombin solution in place sufficiently long to permit clotting to occur.

It is emphasized that complete hemostasis obtained in the usual fashion remains a prerequisite to good surgery. There are, however, certain instances where the suture, the ligature, the silver clip, and other orthodox measures are not practicable to use, and yet in these very cases complete hemostasis may be vital to the patient as for example in dealing with lacerated wounds of the liver, kidneys and lungs. It is further remarked that there is a group of patients possessed of certain blood dyscrasias which result in a tendency to hemorrhage which cannot be controlled by ordinary measures.

The authors recount first a group of controlled animal experiments in which thrombin and fibrin foam were placed in wounds of the liver, kidney and lung. In each instance the intentional trauma provoked hemorrhage difficult or impossible to control by conventional measures. In each of the above instances, a solution of thrombin held in place by fibrin foam speedily attained effective hemostasis. At appropriate intervals the animals were sacrificed and histological studies were made which showed a minimal amount of tissue reaction. It was demonstrated that fibrin foam and thrombin were absorbed almost completely by the end of fifty days.

It was further observed that when the abdominal cavities of animals subjected to the above procedures were re-opened there were minimal adhesions which could be attributed to the use of fibrin foam and thrombin. Likewise operations on the pleural cavity revealed at later exploration a remarkable freedom from postoperative adhesions.

Further experiments showed that the antibiotic agents penicillin and sulfadiazine might be used in combination with fibrin foam and thrombin without alteration either of tissue reaction or final results. In other groups of animals absorbable (oxidized) cellulose was used in place of fibrin foam to serve as a carrier for the thrombin solution and the results in this group were quite as good and in every way comparable to results obtained with the use of fibrin foam.

Following the above experimental work, the authors advocated and used these substances in more than 240 cases other than in the field of neurosurgery. In every instance fibrin foam and thrombin controlled the hemorrhage adequately and in this series of patients more conventional methods would probably have been inadequate and hemostasis accomplished only with great technical difficulty if at all.

Editorial comment. The use of thrombin solution in connection with fibrin foam or absorbable cellulose as a means of securing complete hemostasis where conventional methods would be difficut or impossible represents a major surgical achievement and one of great clinical importance.

Thrombin is now available commercially in a readily usable form. The material has been available on the author's service for about one year and has been used clinically in a number of instances. Its use however has been limited due to the fact that fibrin foam and absorbable cellulose are not yet commercially available. Thrombin solution alone has the obvious disadvantage that it flows off the surface to which it is applied before a clot can form sufficiently firmly to occlude moderate sized vessels. The use of fibrin foam or absorbable cellulose should eliminate this difficulty. In one case on the author's service it was necessary to incise a solitary kidney in order to remove a deeply impacted stone. Hemostasis by the usual methods could not be obtained. Topical thrombin was then applied as follows; the assistant supported the kidney in such fashion that the bleeding surfaces were almost but not quite approximated. The gloved hands of the assistant formed a sort of dam about the wound in the kidney. A solution of thrombin was then flowed into the wound and complete hemostasis resulted in less than sixty seconds. A few mattress sutures were then put in place to serve solely as a support for the clot and the wound was closed in the usual fashion after inserting a Penrose drain. It was observed postoperatively that there was minimal drainage and this was not of bloody character.

ANNUAL CONVENTION

The American College of Physicians will resume its Annual Meetings in 1946 and has now definitely chosen Philadelphia, May 13-17, inclusive. Headquarters will be at the Philadelphia Municipal Auditorium, 34th Street below Spruce.

The meeting will be conducted under the presidency of Dr. Earnest E. Irons, Chicago, Illinois, and the general chairmanship of Dr. George Morris Piresol, Philadelphia, Pennsylvania.

The success of a war is measured by the amount of harm that it does.

Every idea must have a visible covering; every principle must have a dwelling-place; a church is God within four walls; every dogma must have a temple.

State Board of Health

Felix J. Underwood, M.D.

VENERAL DISEASE CONTACT REPORTING

Veneral disease contact reporting by private physicians is the subject of a study being conducted by the State Board of Health in coöperation with the State Medical Association for the purpose of bringing more cases under treatment at the earliest possible date. The experiment puts into effect a new system devised as the result of a survey made by more than fifty private practitioners of the state. It recognizes the physician's lack of time for interviewing, the need for maintaining the confidential relationship between patient and doctor, and the desirability of each contact being free to choose his own physician.

One of the primary features of this system is a "self-interview" questionnaire which has been prepared for the physician to hand to infectious cases of venereal disease coming to his attention. The patient fills in the names of sex partners exposed, seals the questionnaire into an envelope without signing, and mails it to a central post office box maintained at Jackson by the State Medical Association. There the questionnaires are opened by a confidential secretary, notice is mailed to each sex partner named, and then the questionnaire is locked into a secret file. The notice does not specifically mention venereal disease but only requests that the recipient seek out his private physician within two days because he, the recipient, has been exposed to a communicable disease. Recipients are requested to present the notice to the physician who can easily detect what disease is involved by decoding the number on the notice, which corresponds to the number for the diseases listed on the Monthly Numerical Morbidity Report.

After examination by the physician, the contract is requested to mail to the confidential secretary a notice of coöperation. Recipients of contact notices who do not coöperate and seek examination before two weeks have elapsed will then be visited by a follow-up worker of the State Board of Health and urged to seek examination for their own protection.

The results of this system, now on trial, will be reported in detail before the State Medical Association at its next meeting.

* * *

The Separation Center at Camp Shelby has been set up to screen all personnel being discharged from the Army for the existence of venereal disease. Primary and secondary untreated cases are being retained by the Army for treatment with penicillin. Other cases untreated, or incompletely treated, are being interviewed and persuaded to complete the therapy at a Public Health Treatment Center. Cases are being transported by bus from Camp Shelby to the rapid treatment center at Brookhaven at the rate of over four hundred a month. Cases of systemic syphilis are receiving combined penicillin, mapharsen and bismuth treatment. Others showing neurological involvement are being treated by the State Fever Therapy Unit for neuro-syphilis.

This program has been developed in response to requests from military authorities in order to make possible more rapid discharge of military personnel and to obviate withholding discharges for lengthy treatment at the camp.

* * *

EDUCATION FOR RESPONSIBLE PARENTHOOD

The need for more adequate resources for youth guidance and premarital counselling has lately become a serious concern. Civic organizations, youth groups, parent-teachers associations, woman's clubs and others have expressed the need for assistance in coping with problems which will enable young people to become better citizens and homebuilders. The request goes beyond the need for the development of child guidance clinics into the field of providing parents, teachers and youth leaders with suitable educational materials in the fields of social adjustment, emotional growth, and preparation for parenthood. To help meet this need the State Board of Health and the State Department of Education over the past two years have assembled a group of well-selected materials for the use of groups and individuals interested in youth development. Late, authoritative books have been added to the State Board of Health Library and may be borrowed by responsible individuals. A list of the books available may be had upon application to the library.

In addition to assembling materials, regular training courses were conducted under the direction of Dr. William G. Hollister and were attended by physicians, nurses, child welfare workers, youth leaders, parents and teachers. Over one hundred individuals took advantage of these courses to obtain a broader understanding of the subject and to prepare themselves to conduct discussion groups with adults back in their own communities. It is estimated that approximately four hundred teachers have benefited from this training.

Many private physicians have recently noted increased demand for their functioning as premarital councellor and have felt the need of having just such packets of material as the State Board of Health has compiled. More than ever they look to the physician to fulfill the important role of adviser in solving numerous social and marital adjustment problems.

* * *

MISSISSIPPI VITAL STATISTICS
1944

The Division of Public Health Statistics has just completed a 126-page publication portraying vital statistics for Mississippi in 1944. A variety of basic tables are included interpreting data compiled from records of births, deaths, stillbirths, marriages, and divorces collected through the Division of Vital Statistics.

Among other things the study indicates that the first five of the ten principal causes of death account for 49.9 per cent of the total deaths in the state during 1944. Of these, the leading cause of death was heart disease, a total of 3,537 deaths being reported. As in 1943, nephritis is again in second place with intracranial lesions of vascular origin, cancer and accidents in third, fourth, and fifth places respectively.

Once again there is reported a population decrease for the state. The total estimate of 1,996,333 is 56,561 less than the estimate for 1943. Both figures were based on war not represent a true picture of pop ration book registrations and as such may change although they do represent the best estimates available for these war years. Applying percentages as shown in the 1940 census, the color estimates for 1944 show 1,018,458 whites and 977,875 non-white.

The birth rate for Mississippi continues high with a rate per 1000 total population of 28.3, the white rate being 25.2 and the non-white 31.6. This represents a slight decrease as compared with the total and the white rates for 1943. The non-white rate remained the same.

The death rate for the state, on the basis of place of occurrence of death, remained the same as for 1943, namely, 10.2. On reallocation of deaths to place of residence of the deceased, the rate dropped to 10.1, with 8.7 the rate for white and 11.6 the rate for the non-white group.

The maternal death rate, which has been declining during the past several years, showed a slight increase for 1944, having risen from 3.9 in 1943 to 4.0 in 1944. In 1943 there were 233 maternal deaths in the state; in 1944 there were 228. Of the 228 deaths reported in 1944, 71 were white and 157 non-white.

The infant mortality rate of 43.6 represents a decrease of 3.1 as compared with the 1943 rate. More than one-half, or 1436, of the total of 2481 infant deaths occurred within the first month of life. Prematurity, injury at birth, diarrhea and enteritis, influenza and pneumonia lead as causes of death in this group, the majority occurring under one week of age. The increased attention to the Maternal and Child Health program is expected to accomplish a reduction in the number of infant deaths from these causes.

Tuberculosis again leads as a cause of death among the infectiousu and parasitic diseases. The rate of 37.1 per 100,000 population for pulmonary tuberculosis is however 2.1 lower than the 1943 rate. Of the 740 such deaths recorded, 217 were among white and 523 among the non-white groups.

Thirty-four deaths from diphtheria, 96 deaths from whooping cough and 61 deaths from malaria rank among leading causes of death within the infectious and parasitic disease group. Of public health interest is the fact that there were reported 67 deaths from pellagra, 31 of these among the white and [illegible] non-white groups.

36 among and accidental deaths numbered Vi with a rate of 91.2 per 100,000 population. The 1943 rate for causes in this group was 89.8. Of the 1821 such deaths 342 were due to motor vehicle accidents.

There were recorded 4.471 fewer marriages for 1944 being 41,559. There were 891 more divorces in the state, the 1944 total being 6742, an all-time high for Mississippi.

Physicians interested in having a copy of the publication, VITAL STATISTICS, 1944 for the state of Mississippi, may obtain same by dropping a card to the Division of Vital Statistics, Dr. R. N. Whitfield, Director.

* * *

The attention of Mississippi physicians is again directed to the opportunity afforded by the State Board of Health Medical Library in keeping abreast of current medical literature. With over six thousand volumes of books and bound periodicals, it is rendering considerable assistance to the medical and public health professions of the state. Physicians returning from the services and others are finding the library an excellent refresher source in rounding out their knowledge regarding current practices in the various fields of medicine. Most books are loaned for 2-weeks' periods and can be borrowed by mail when the physician does ot have convenient access to the reading room.

Recent acquisitions include:

1.Landsteiner, Karl — The specificity of serological reactions. rev. ed. Harvard University Press, 1945.

2. Cannon, Walter B. — The way of an investigator W. W. Norton Co., 1945.

3. Beckman, H. — Treatment in general practice. 5th ed., Saunders, 1945.

4. English, O. S. & Pearson, G. H. J. — Emotional problems of living; avoiding the neurotic pattern. W. W. Norton Co., 1945.

5. Rich, A. R. — Pathogenesis of tuberculosis. Thomas, 1944.

6. Puffer, R. R. — Familiary susceptibility to tuberculosis. Harvard press, 1944.

7. Leonard, M. L. — Health counseling for girls. Barnes, 1944.

8. Stone, H. & Stone, A. — A marriage manual. rev. ed., Simon & Schuster, 1939.

9. Stern, B. J. — American medical practice in the perspectives of a century. Commonwealth fd., 1945.

10. Mustard, H. S. — Government in public health. Commonwealth fd., 1945.

11. Thomas, G. I. — Food of our forefathers. Davis, 1941.

12. Natl. Inst. of Health — Studies of typhus fever. G. P. O., 1945.

13. Med. Clinics of N. America —
    - —Symposiums on Internal medicine and rehabilitation, May, 1945.
    - —Symposium on medicine emergencies, (Mayo Clinic No.), July, 1945.
    - —Symposium on specific methods of treatment (Boston No.), September, 1945.
    - —Symposium on gynecology and obsterics. (Philadelphia No.), November, 1945.

14. Clinics—
    - —Traumatic surgery. April, 1945.
    - —Management of cancer. June, 1945.
    - —Management of common neurologic disorders, August, 1945.
    - —Obstetrics. October, 1945.

15. Appleton, J. L. T. — Bacterial infection, with special reference to dental practice. 3d ed. Sanders, 1944.

16. Felsen, J. — Bacillary dysentery, colitis and enteritis. Saunders, 1945.

17. Gould, S. E. — Trichinosis. Thomas, 1945.

19. Pratt, Geo. K. — Soldier to civilian. McGraw-Hill, 1944.

20. Steiner, L. R. — Where do people take their troubles. Houghton, 1945.

21. Senn, M. J. E. & Newill, P. K. — All about feeding children. Doubleday Doran, 1944.

22. Whipple, D. V. — Our American babies; the art of baby care. Barrows, 1944.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

Acute Poliomyelitis	17	8	10.4
Bacillary Dysentery	481	720	589.2
Dengue	0	0	.8
Diphtheria	191	123	108.4
Influenza	3204	3109	2874.8
Measles	97	67	163.8
Meningococcus Meningitis	1	5	4.8
Other Forms Meningitis	5	6	2.8
Pellegra	163	214	223.6
Pneumonia	738	737	708.4
Pulmonary Tuberculosis	161	156	150.8
Scarlet Fever	93	75	75.0
Smallpox	8	0	2.2
Tularemia	3	4	2.4
Typhoid Fever	9	15	12.2
Typhus Fever	28	16	16.4
Undulant Fever	10	4	3.6
Whooping Cough	343	568	549.0

Woman's Auxiliary

President .... Mrs. L. J. Clark
Vicksburg
President-Elect .... Mrs. Stanley Hill
Corinth
First Vice-President .... Mrs. H. C. Ricks
Jackson
Second Vice-President .... Mrs. Henry Boswell
Sanatorium
Third Vice-President ...... Mrs. W. H. Anderson
Booneville
Recording Secretary .... Mrs. Geo. W. Owens
Jackson
Fourth Vice-President .... Mrs. Ben Walker
Jackson
Treasurer .... Mrs. J. D. Simmons
Cleveland
Historian .... Mrs. Harvey Garrison
Jackson

LUNCHEON

The Woman's Auxiliary to the Central Medical Society held its annual Christmas luncheon at the Edwards Hotel Tuesday, December 4.

Mrs. George E. Riley, president, presided over the meeting and extended a cordial welcome to all members and guests.

Mrs. H. C. Sheffield offered a word of prayer.

Mrs. N. C. House, vice-president and program chairman, introduced the guest artist, Miss Charlice Minter, assistant speech director at Belhaven College, who gave a reading, "Jean Valjean and the Christmas Doll." Ouida Woody, acompanied at the piano by Cynthia Knight, students at Belhaven College, rendered two beautiful vocal selections, "There's a Song in the Air" and White Christmas."

Members who have been away with their husbands in service and guests were presented.

Mrs. Harley Shands made a motion that the January meeting be pretermitted since it comes on New Year's Day. The motion was seconded by Mrs. J. W. Lipscomb, voted on, and accepted.

An invitation was extended to all wives of members of the Central Medical Society and wives of doctors in the service stationed here to become members of the Auxiliary.

Mrs. Riley brought a Christmas thought to the Auxiliary..

The following hostesses were presented: Mrs. H. C. Ricks, Mrs. F. J. Underwood, Mrs. Byron Alexander, Mrs. C. C. Smith, Mrs. I. C. Huggins, and Mrs. N. C. House.

Auxiliary members present included: Mrs. W. L. Hughes, Mrs. W. A. Smithson, Mrs. F. A. Donaldson, Mrs. George E. Riley, Mrs. John D. Carr, Mrs. H. C. Sheffield, Mrs. F. J. Underwood, Mrs Lawrence Long, Mrs. Steve Cole, Mrs. Walter Simmons, Mrs. Adna Wilde, Mrs. J. G. Thompson, Mrs. Harvey Garrison, Mrs. Bristed Ware, Mrs. Walton Lipscomb, Mrs. W. F. Hand, Mrs. Jimmy Blaine, Mrs. Boyd Edwards, Mrs. W. C. Thompson, Mrs. Van Dyke Hagaman, Mrs. P. R. Greaves, Mrs. T. E. Wilson, Mrs. T. M. Moore, Mrs. F. D. Hollowell, Mrs. B. N. Walker, Mrs. G. W. Owen, Mrs. H. R. Shands, Mrs. Noel C. Womack, Mrs. C. B. Mitchell, Mrs. N. C. House, Mrs. W. C. Redmon, Mrs. Byron Alexander, Mrs. H. C. Ricks, Mrs. C. C. Smith, Mrs I. C. Huggins and Mrs. A. L. Gray.

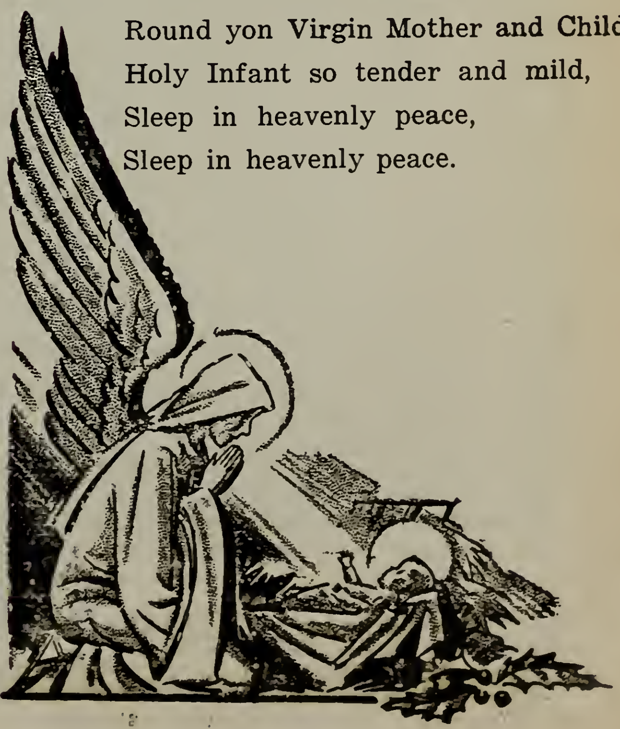
CANCER

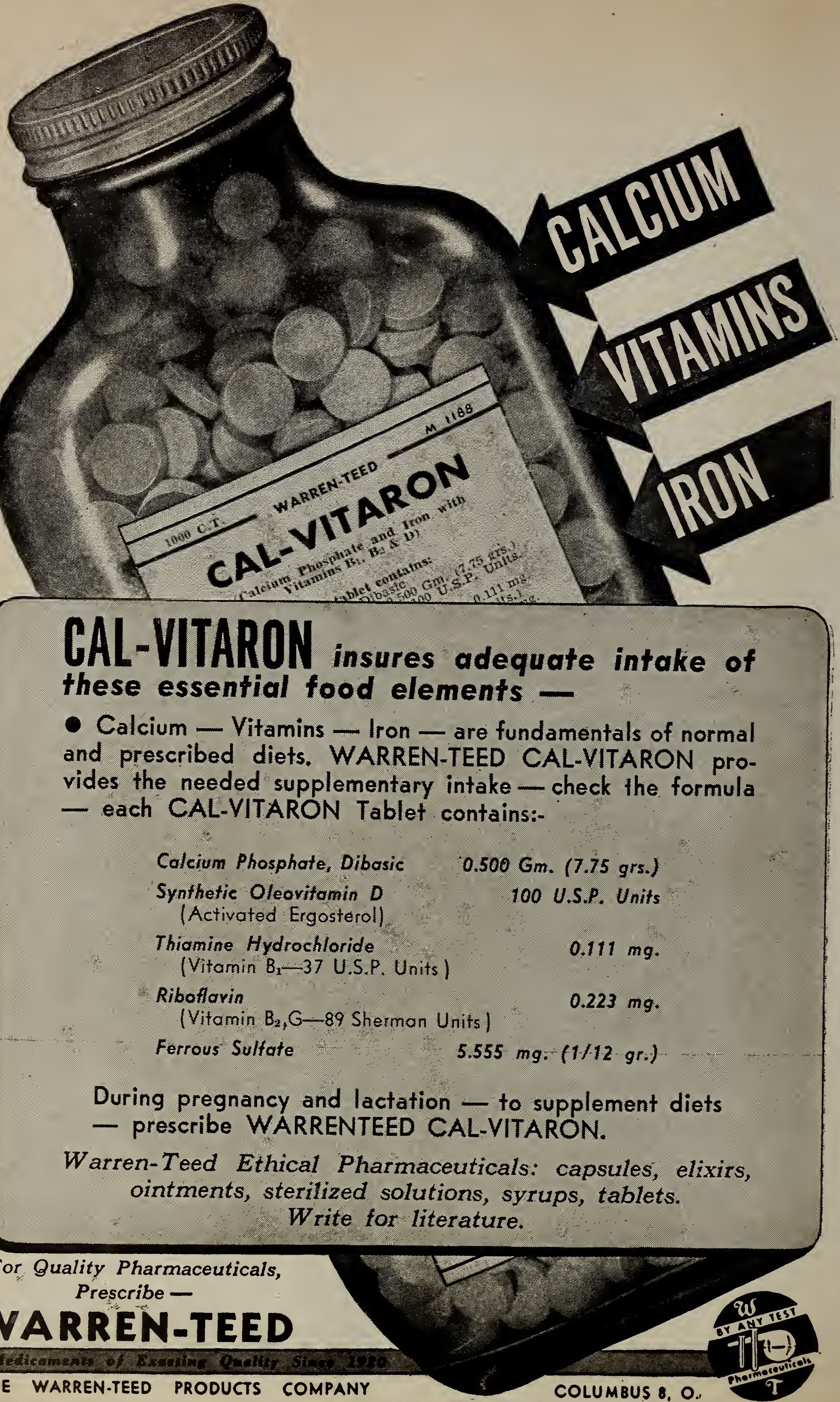
Cancer takes the life of one person out of six in America. Thirty to fifty per cent of these lives could be saved just with the facts we now have in hand. Cancer is not inherited as far as medical research has thus far determined. The public must be educated to go to the doctor and the doctor must be prepared with office equipment and trained nurse to make every examination. A central hospital in the state affiliated with the small ones in which the nurses in training and the interns should spend at least six months of their time could help to cut down this terrible human toll of life. Seventeen million people who are now living in the United States will die of cancer. *For every practitioner a trained nurse* — preferably a nurse who has had training in a small hospital and some time in the practitioner's office—would change this picture

As an aid in making examinations and as an educator of the public, the nurse has unlimited opportunities. When the medical leadership of the profession gets away from big hospitals and comes to earth in the real field of medical service recognizing the small hospitals as aids, we can do big things.

Every doctor and every person in the country who can should send five dollars to the American Cancer Society, 350 Fifth Ave., New York 1, N. Y., for membership so as to help the cause against this killer of human beings, and to keep informed on what is going on.

Silent night, holy night,
All is calm, all is bright
Round yon Virgin Mother and Child,
Holy Infant so tender and mild,
Sleep in heavenly peace,
Sleep in heavenly peace.




CALCIUM
VITAMINS
IRON
1000 C.T.
WARREN-TEED
M 1188
CAL-VITARON
(Calcium Phosphate and Iron with Vitamins B₁, B₂ & D)

CAL-VITARON ***insures adequate intake of these essential food elements —***

● Calcium — Vitamins — Iron — are fundamentals of normal and prescribed diets. WARREN-TEED CAL-VITARON provides the needed supplementary intake — check the formula — each CAL-VITARON Tablet contains:-

Calcium Phosphate, Dibasic	*0.500 Gm. (7.75 grs.)*
Synthetic Oleovitamin D (Activated Ergosterol)	*100 U.S.P. Units*
Thiamine Hydrochloride (Vitamin B_1—37 U.S.P. Units)	*0.111 mg.*
Riboflavin (Vitamin B_2,G—89 Sherman Units)	*0.223 mg.*
Ferrous Sulfate	*5.555 mg. (1/12 gr.)*

During pregnancy and lactation — to supplement diets — prescribe WARRENTEED CAL-VITARON.

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

For Quality Pharmaceuticals, Prescribe —

WARREN-TEED

Medicaments of Exacting Quality Since 1920

BY ANY TEST Pharmaceuticals

THE WARREN-TEED PRODUCTS COMPANY COLUMBUS 8, O.

Medical Education for the Laity

EDGAR HULL, M.D.*

New Orleans, La.

EVERYONE should accept without question the evident fact that medical education for the laity is necessary. Indeed, it is inevitable that persons of all grades of intelligence will, because of the natural law of self-preservation, seek and find medical knowledge that is useful to them. Men will not be deterred in their quest for knowledge outside of their particular fields of endeavor by the false dictum of the English poet: "A little learning is a dangerous thing"; actually, a little learning is dangerous only when one fails to realize that it is just a little. Even if we were to believe, as a very few still do, that lay people would be better off if they knew nothing at all about medicine, we should still have to admit that it is wise to guide them in their inevitable quest.

I presume to speak upon this subject only because I am interested in it, not because I am competent or experienced, my own proper field being that of medical education for the profession at the undergraduate and graduate level. My interest has arisen because I have observed that the possession of medical knowledge by laymen is not always an unmixed blessing; attempts to impart medical knowledge have produced bad as well as good effects. It has occurred to me that some of the unintended consequences may be avoided if the purposes of imparting medical information to the laity are more clearly defined in the thoughts of those who do the teaching, and if the requisites which must be met, if these purposes are to be attained, are carefully considered. I propose, therefore, to set down these purposes and requisites and to discuss them. I shall also indicate a few medical subjects which I believe should be fitted into the scheme of general education, subjects which should serve as a foundation upon which useful medical knowledge may be built. At the end I shall add a note about informal word of mouth medical education, which I believe can be very useful.

Purposes

From the standpoint of purpose, there are two kinds of education—liberal and useful; medical education, both for the profession and the laity, should be of the same two kinds. It is entirely erroneous to conceive that education in any field should consist only of imparting knowledge the use of which can be easily foreseen; such knowledge, though of course very important, fails to satisfy the heart of man. He must know things just for the joy of the knowing, just as he must have things just for the sake of the having. Purely practical education is like that of an automobile that is perfect in all respects so far as efficiency of operation and comfort and safety are concerned, but which lacks beauty of design and the doodads which make for pride of ownership.

Liberal education is based upon the premise that knowledge may be its own end; that there is a purpose to education which bears no material fruit. Aristotle divided possessions into two classes: "Those rather are useful," he wrote, "which bear fruit; those liberal, which tend to enjoyment. By fruitful, I mean, which yield revenue; by enjoyable where nothing accrues of consequence beyond the using." Knowledge is liberal, then, when it is sufficient of itself.

Who can deny that knowledge of medicine, even though it helps us not one whit to stay well or to get well, is interesting and enjoyable; that to have it gives us a sense of self-satisfaction; that medical matters form an absorbing subject of conversation? Knowledge of how we are made, of how our insides work, of the world of microbes, of the diseases that attack man (provided they do not attack us in particular), is intensely enjoyable; of the creations of God, living things are more interesting to most persons than are inanimate bodies; and man is to man the most interesting of living creatures.

It should be noted that most of the articles on medical subjects which appear in lay periodicals and which are read avidly by the public actually have a liberal rather than a practical appeal. Certainly overdramatized articles on hernia, malaria, cure of deafness, the fine art of diagnosis, and the Rh factor are read not because the information is useful, but because it is interesting. (It is unfortunate that from articles of this type the layman often gets liberal misinformation rather than liberal education.)

---

*Presented before the Mississippi Public Health Association, Jackson, Miss., Dec. 11, 1945. Professor of Medicine and Director of the Department of Medicine, Louisiana State University School of Medicine

Yet liberal knowledge is in the long run useful in a material way. Knowledge acquired solely for the purpose of enjoyment can often, at a later date, be put to practical use by intelligent persons, and makes even the less intelligent more receptive to practical knowledge which is imparted to them by others. In the field of medicine, accurate though limited knowledge on the part of the laity makes for better, more coöperative patients, and requires much less effort by the public health workers in order to accomplish their aim of improving the health of the people. If people were better educated in medical matters, they would do more of the things that they should of their own free wills, as most things should be done, and there would be less need for coercive legislation designed to improve the public health. The activities of quacks and charlatans would be curtailed because people could see that their claims were ridiculous, and medical fads would be less likely to mushroom because liberally educated persons would reject them as being incompatible with facts which they have learned.

More generally, there can be no doubt that the more liberal is one's education, the more he knows about fields outside of the one in which he works for a living, the better citizen he is. I argue, also, that concentration on purely practical education, even in the case of the less gifted, is a dangerous trend in a democratic country.

As regards utility, medical education of the laity should be considered as having two aims, which though overlapping are nevertheless distinct. The first is to help the individual to improve or to maintain his own health and to safeguard the health of his family. The second is to effect improvement in the average health of the community, state or nation. In doing his part to accomplish the first aim, the person educated acts as an individual or as a responsible member of a family unit; in fulfilling the second, he acts by carrying out more completely and with better understanding his duties as a citizen.

Neither of these aims is apt to be accomplished in full measure unless both of them are kept in mind when medical knowledge is dispensed. Suppose, for example, that a campaign of education is undertaken for the purpose of preventing deaths from accidental poisoning, and the principal emphasis is placed upon the fact that there is urgent need for prohibition or restriction of the sale of certain poisonous substances such as barbiturates, bichloride of mercury, and carbolic acid. The campaign impresses a sufficient number of influential citizens, so that the needed laws are passed. But unless legislation is carried to an unreasonable extreme, individuals, and especially children, are not protected against accidental poisoning by useful household agents such as lye, ammonia, dry cleaning fluids, and pest poisons, or by sedatives or stimulants prescribed by the doctor but which are allowed to remain in the medicine cabinet long after the need for them has ceased to exist. Unless responsible members of the family are made fully aware of the dangers of these substances and of the precautions to be taken in their use, storage, and disposition, the campaign has in large part failed. The better qualified the average individual is to protect himself and his family, the less need there is for laws to protect him against health hazards.

Requisites

First, medical information imparted either for liberal or practical purpose must be accurate; only the truth should be told. As I have already mentioned, much of the medical information given out to the public is, unfortunately, incorrect, so that unhappy results may follow if attempt is made to use it. As nearly as I can make out, the principal causes of inaccuracy are lack of knowledge on the part of the teacher; his willingness to exaggerate in order to achieve his purpose, be it liberal or practical; and the sacrifice of accuracy in order to achieve simplicity. Lay writers, who prepare articles on the basis of interviews with well known physicians and a little superficial study, are the worst offenders on the first two counts, and professional people on the last, but it is only fair to say that inaccuracies due to all three factors are not infrequently detectable in the efforts of physicians to educate the laity.

Second, it must be understandable. Facts must be presented in words the meaning of which is known to laymen, the presentation being carefully designed for complete comprehension by the persons to whom they are to be imparted. The net result of presentations which are not understood is the dissemination of inaccurate information. It must be realized that this requisite automatically limits the breadth of the medical education of lay persons. What the layman cannot grasp, he should not be told. I believe that physicians, in explaining to patients the nature of their illnesses, are the ones who violate this requisite most frequently; the amount of medical misinformation, widely spread by word of mouth, which emanates from this source, is astounding.

Third, it must be authentic; that is, it must consist of established facts about which medical authorities are in substantial agreement. New concepts and unproved claims should be presented to the profession and subjected to proper confirmation before they are given to laymen, who are unqualified to judge the points at issue. Premature release of claims not yet subjected to criticism and adequate trial lead to false concepts and confusion, and often make things very difficult for the conscientious practitioner who learns of advances in medicine from medical journals rather than from the daily papers or weekly news magazines. One of the most harmful trends conceivable is the present tendency of lay writers in popular magazines to discuss controversial medical problems, and then presume to decide which side is right and which is wrong. Usually the "old guard" are discredited and pictured as obstructionists to medical progress; the conclusions may lead to lack of confidence in the conscientious scientists who realize that change and progress are not necessarily the same.

These are the positive requisites, the essence of which is the first one—accuracy. As corollaries of these, there are two negative requisites as well.

First, medical education should not engender fear, or tend to cause people to become abnormally preoccupied about their health. Although fear is a potent stimulant of positive action, it is also one of the most potent factors in the etiology of the neuroses, which are more common and distressing than the organic diseases. Even the most carefully presented facts about disease may precipitate neuroses in susceptible persons, among whom are many of the most avid lay students of medicine. Exaggeration designed to produce action may cause neuroses even in well balanced persons. I have seen many a normal person made miserable by fear of venereal disease, cancer, heart disease, or tuberculosis, produced by efforts to control these diseases through education. This requisite is best fulfilled if medical instruction appeals to reason rather than to emotion.

Second, it should not give rise to false hopes. Such hopes are not likely to arise if medical instruction is truthful, authentic, and understandable, but because some of these requisites often fail of fulfillment, much unhappiness has been produced. Persons with advanced hypertensive disease have flocked to surgeons whose operations on the sympathetics have been publicized, or have pleaded for kidney extracts which have never been advanced beyond the experimental stage; sufferers from crippling arthritis have expected complete restoration of function from injections of gold; miracles are expected, almost demanded of the new antibiotic drugs, some of which are not yet even available to the practicing physician. Most of the false hopes arise out of unauthentic or misunderstood information.

Medical Subjects in General Education

One thing I advocate is that the history of the pure sciences and of medicine be assigned its proper place in the history taught in schools. History in its proper perspectiive cannot be learned unless the role played by disease in shaping its events is considered; a clear picture of the march of civilization cannot be painted unless the doctor of each period, as well as the prince and priest, is depicted. Progress in combatting disease is historically as important as advances in the methods of waging war. I think that children should know, for example, who proved that the blood circulates 'round and 'round as well as who proved that the earth is round; who invented the stethoscope as well as who invented the cotton gin; who discovered microbes as well as who discovered islands and continents. In this connection, it is important to emphasize that the pure scientists, the men who have experimented and made observations and deductions just for the sake of decreasing the realm of the unknown, are the ones who made the discoveries which others have later put to practical use for the benefit of mankind.

It also seems to me that children should learn about the world within them as well as the world about them; about the factors which make people sick as well as those which cause rain and storm and earthquake; about the tiny beasts that attack man as well as the large ones that usually avoid him.

A Note on Informal Medical Education

Except for expressing a wish that liberal medical subjects be included in the plan of general education I have said nothing about the means of disseminating medical knowledge to the laity. I approve of the means which are employed by all qualified organized groups: the press, the platform, the radio, the poster, schoolroom. Especially do I approve of the means employed by the public health nurse, who instructs by example, who teaches as she serves—a missionary method. Her teaching is informal and intimate, and allows for questions and clarification. Its content and the manner of its presentation may be fitted to the intelligence, education, and temperament of the "pupil." This is the most effective method of teaching, and I would like to see it widely used for the dissemination of liberal as well as practical medical knowledge. I suggest that it be used not only by people who make the public health their life's work, but by practicing physicians as well, who must realize that they must be educators as well as practitioners if they are completely to meet their obligations to society. The method may be used not only in professional but in social contacts as well. We know that lay persons will pass the information along, and may be assured that as it spreads it is more accurate than it would be had it been disseminated to large groups in a formal manner.

Summary

Medical education of the laity has had bad as well as good effects, the principal bad ones being the engendering of fear and of false hopes, and the undermining of confidence in physicians. Bad effects have resulted principally, but not entirely, from articles written by unqualified persons for the purpose of amusing or thrilling the public rather than educating it. In order to increase its good effects and minimize its bad ones, it must be liberal as well as practical, and it must be accurate, understandable, and authentic. The foundation upon which practical medical education is to be built should be laid in early childhood. Informal instruction by qualified persons is an effective method which should be more widely used.

The Management of Varicose Veins and Their Complications*

JAMES W. O'DELL, M.D., F.A.C.S.

Vicksburg Clinic,
Vicksburg, Mississippi

IN DEALING with varicosities of the lower extremities, there are a few major facts with which one should be familiar before attempting more than the most minor procedures in general usage today. One of the first of these is a knowledge of the gross and histological anatomy of the venous system of the lower extremities and, second, something of the physiology of the venous system of this region. For the purpose of this paper, I will deal only with the sapheno-femoral system and more especially with the long saphenous system, as this is the vein most often involved in varicosities with which we are called upon to deal. The long saphenous vein has its inception on the medial aspect of the foot, just back of the great toe, then passes upward and slightly backward toward the popliteal space, and from just medial to the patella it moves slightly anterior as it continues up the thigh to join the femoral vein at the fossa ovalis. The smaller saphenous vein begins on the lateral aspect of the foot and passes just behind the external malleolus to continue up the leg to the popliteal space where it penetrates the deep fascia of the leg and joins the popliteal vein. However, before this occurs a number of small veins are given off which join the long saphenous vein as it continues up the thigh in the subcutaneous tissue. Just before the long saphenous joins the femoral in the fossa ovalis in the groin, three small veins drain into it from above. These veins are the superficial circumflex iliac vein, superficial epigastric veins and the external pedendal vein. About two inches below the fossa ovalis the saphenous is joined by two more small veins, the lateral and medial superficial femoral veins.

Veins as a whole are composed of three layers, as are the arteries, the intima, media and adventitia with its externa, but being under much less stress from pressure their walls are relatively thinner and less capable of withstanding increased and constant stress and strain than are the arteries. They also have a system of valves within the lumen of the vessels developed from the intima, the semilunar valves. They are interspersed throughout the entire venous system, and their normal function is to prevent backflowing, once the blood has passed beyond them. There is a set of these valves just below the sapheno-femoral junction, within the saphenous vein, as well as other sets above the junction within the femoral and iliac veins. There are from five to seven pairs of these veins in all throughout the course of the long saphenous system. There are communicating veins between the femoral and saphenous systems in the leg, and these short communicators also have sets of valves which prevent backflow of the blood.

The physiologic flow of the blood through the lower extremities on its return to the heart is promoted by the pressure of the arterial blood through the capillary bed, and is aided further by the pumping effect of the contracting muscles while walking or doing any form of activity which causes contraction and relaxation of the muscles. The motion is further enhanced by the negative pressure created by the rise and fall of the diaphragm during the act of breathing.

ETIOLOGY

There is no doubt but that there are many complicating factors which play a part in the etiology of varicosities of the saphenous veins of the lower extremity of man. Among those factors may be mentioned the upright position of man. The saphenous vein although somewhat thicker than the deeper femoral is not overlaid by muscle and heavy fascia, but only by loose connective areola and fatty tissue. In varicose veins, as in many other conditions occurring in man, hereditary factors play a part. Trauma and especially trauma to the veins of the lower extremities incurred through long and regular hours on cement floors and around machine and work benches is important. Evidence of this as a factor is to be found in the great percentage of men who have spent a great many years in industrial plants, who suffer from one degree or another of varicosities of the veins of the lower extremities. Infection and postoperative and postpartal thrombophlebitis are known and frequent causes. Pregnancy and pelvic tumors are responsible in the female in many instances, and there are many other factors which have been mentioned as possible causes, all of which no doubt play important parts.

PATHOLOGY

The changes encountered in varicose veins are the results of increased venous pressure on a thin-walled muscular tube with first thickening, later thinning, tortuosity and sacculation of the walls. Dilatation of the walls brings about a separation of the valves of the veins and produces an incompetency of the valves and a reversal of the normal upward flow of the blood stream, producing stasis. Into these static areas bacteria find their way and a suitable media on which to thrive and grow. The overlying skin at first becomes congested and edematous. Later as the condition progresses it becomes atrophied, fibrosed and pigmented, the venules of the skin become involved and chronic ulceration of the skin and subcutaneous tissues is the result.

SYMPTOMS

The symptoms most often complained of are tired, heavy sensations of the feet and legs, cramping of the muscles of the calves, and swelling of the ankles and dorsum of the feet especially at the end of the day. Very often the swelling is accompanied by intense itching and a dermatitis which is difficult to relieve. The most outstanding symptom of long standing varices is chronic ulceration of the skin and underlying tissues which is so often present. These ulcers heal slowly or not at all when treated by ordinary means, and are responsible for much suffering and loss of time. In these cases ulceration is usually found on the leg in some position just above the ankle, surrounded by an area of indurated and pigmented skin. The apparent extent of varicosities is not always comparable with the symptoms, as in many instances small varicosities produce very debilitating symptoms and are accompanied by extensive pigmentation and ulceration, while quite large varicosities may be for many years asymptomatic, and unattended by complications. As a rule all varicosed veins that remain untreated, however, progress toward irreversible changes in the veins, skin and tissues involved so that ultimate radical treatment becomes necessary. In large sacculated varices it is not uncommon to have a spontaneous rupture and hemorrhage, or hemorrhage resulting from a small puncture wound into the saccule. In all cases of varicosities, with ulceration, one must keep in mind and rule out certain constitutional diseases which are often found present. Some of these are lues, endarteritis obliterans, cardiorenal and toxic thyroid disease.

TREATMENT

Method of treatment of varicose veins varies somewhat among men and clinics the country over, but only in minor detail. Methods, for the purpose of discussion, may be divided into two classes according to the veins to be dealt with—those amenable to conservative treatment only and those requiring surgery and supplementary treatment at the time of or following surgery. However, before any form of treatment is begun, one should be reasonably sure as possible that he has a clear picture of the pathology **per se**, that is a correct and sound diagnosis. One must keep in mind arteriovenous aneurysm resulting from trauma or of congenital origin. If there is sacculation just below the femoral crease, one must be sure it is not femoral hernia. In the presence of large varicosed veins in the lower extremity, one must rule out the possibility of obstruction of the femoral vein, and be sure before treatment of any type is begun that the varicosed saphenous vein is not a compensatory collateral return circulation in this extremity, in which case, splinting alone is advisable.

Special tests are of proved value in estimating the degree of pathology in a case and are of equal value in determining the type of treatment best suited to each individual case. If the valvular arrangement in the veins is kept in mind, indicated tests may be quickly applied and results correctly interpreted. For the purpose of this paper it is sufficient to mention only three, and if these are thoroughly mastered and their principles understood, one may study varicosities and obtain a fairly clear picture of the extent of pathology in each case.

First, the Swartz test, or percussion test, is of value when the vein is well visualized below the knee but is buried deep in the thigh tissues. By percussing the varicosed below and palpating the thigh above with the other hand, the course of the vein may be determined if the vein is varicosed, as the column of blood will carry the impulse. Trendelenburg's test is the test most commonly employed to determine reverse flow in varicose veins. This is not a difficult test to perform and to understand. The patient first lies down, the limb is elevated to empty the varicosities, pressure is applied over the saphenous at the sapheno-femoral junction, the thumb usually being used as the medium of pressure, and the patient is asked to stand while the vein is inspected. If it is seen to fill and become tense very rapidly, and from above, the test is positive. If, on the other hand, the veins are seen to fill from below, but fill more rapidly when the compression is removed, the test is still positive, and there is incompetency of the valves of the saphenous below the sapheno-femoral junction, and consequently backflow at this point. When the filling is from distant areas, and also from perforators in the thigh or leg, but the vein does not become more tense when the pressure at the groin is removed, the test is negative. On the other hand when valve incompetency is proved at the femoral junction and in communicators in the thigh, we have a double positive Trendelenburg test. When it is necessary to test the patency of the deep femoral vessels or to locate on the thigh the point where perforators come through to the subcutaneous tissues, Perthe's test is most commonly used, and is of much value. This test is performed by placing a tourniquet about the thigh at the area where a perforating varicosity is thought to be and having the patient walk back and forth across the room some twenty or thirty times. If the deep veins are patent, the normal contracting calf muscles will pump the blood into the deep veins below the tourniquet leaving these empty. If the test is positive, the emptied veins fill quickly from above when the tourniquet is removed. However, when the deep veins are occluded, there would obviously be no emptying of the superficial veins in this manner.

There are a number of other tests which have been mentioned much in recent years, most of which are based on the principles of these three tests, and if these three are mastered and carried out in a faithful manner, they will be found all that are necessary in the way of tests to deal successfully with varicosities of the lower extremities.

Conservative or medical management is suited only to a selected few cases by choice and in a few cases of necessity because of contraindications to a more radical type of treatment. In those cases where conservatism is the treatment of choice, veins of not too great a degree of varicosity, and those below the knee with proof of no perforators or back flow above the knee, may well be handled successfully by medical management. However, it must be borne in mind that because the vein is not visible above the knee is no criterion that the vein is not varicosed.

The methods used in these cases vary but little at this time the country over, and some form of sclerosing solution is used. We use, as do many of the other clinics, sodium morrhuate, 5 per cent solution. This is a sodium salt of a fatty acid derived from cod liver oil. The solution is injected into the vein on one or two cc. doses, allowing four or five days to elapse between injections. As the solution breaks down in the vein lumen the fatty acid irritates the intima of the vein wall and promotes closure of and sclerosing of the vein wall, and in many instances obliteration entirely of veins suitable for this type of treatment. However, many times these veins cannulate again to give further trouble. More rapid results, I think, are often obtained if the so-called dry vein technic is used. This is accomplished in the following manner: After the needle is inserted within the vein lumen as much blood as possible is pushed out of the segment to be sclerosed in each direction and held away from the segment by the fingers. The injection is now made and a firm pad of gauze is applied over the area and held firmly in place with elastoplast before the fingers are released. As this almost exclusively an office procedure, and is therefore done on ambulatory patients, a good effect may be obtained by wrapping the entire leg in an Ace bandage at the completion of injection. In using sclerosing solutions there are a few precautions to be kept in mind and observed. The first dose should be small and given very cautiously, as a small percentage of patients will be found who do not tolerate this material, due to allergy. In attempting to obliterate so-called sunbursts or telangiectatic areas that so often appear on the thigh, especially in women, one must use considerable care to be certain the needle is in the small venule that feeds the sunburst and not outside in the tissues around the venule, or in the skin, as much damage may ensue due to pressure necrosis. In spite of the fact that it is claimed that sodium morrhuate will not cause necrosis of the tissues, if a sufficient quantity is forced in the tissues outside the vein wall necrosis will follow. It is, therefore, very necessary in routine injections to be sure the needle is in the vein lumen and not in the wall or in the tissues outside the vein entirely. It is rather dangerous to inject a vein over or near the tibial crest for if an unhappy effect is obtained a very chronic and obstinate ulcer is apt to result. This same caution applies in the region of the malleoli or the bony portion of the dorsum of the feet. The fact of the matter is, that veins in the region of the feet about the malleoli are so well protected by shoes that treatment, other than the splinting offorded by these, is seldom indicated. There is an occasional case, however, which might fall between those requiring a strictly medical régime and those where radical surgery is definitely indicated. These are cases which have one large perforator which usually appears about midthigh with demonstrable valvular incompetency below, and large varicosities, but in which no valvular incompetency or evidence of varicosities can be found in the saphenous system above. This is an instance where a combined minor surgical procedure followed by injections as indicated is usually followed by good results. As a rule these perforators lie just beneath the skin, and can be reached through a very short transverse incision at the point on the thigh where the varicosity is found to terminate. This point can easily be determined, using Perthe's test for the purpose. The skin is prepared, and using a small amount of 1 per cent novacain solution as the anesthetic agent, this is injected in the skin only over the point selected, a short transverse incision is made and the vein elevated on a hemostat, clamped, divided and the segments tied. Closure is with two or three interrupted silk sutures and the area is dressed with a small pad secured to the skin with a small piece of elastoplast. Short segments of the vein below this point may be removed in the same manner as seems best to the operator. Usually one or two segments are sufficient. These procedures, although minor, should be done in the operating room, after which the patient may go home to return to the office for dressings and for removal of stitches, as well as for injection of small varicosities which may remain following surgery.

However, the greater number of patients who come to the surgeon for treatment of varicose veins do not come in either of these classifications. They not only have severe varicosities, but many and varied complications and these complications are usually responsible for their seeking help. First among the complications which bring such a patient is the chronic and intractible ulcer, and this ulcer which has defied all the home remedies and patented salves to effect a cure. The patient feels, and quite naturally so, that a few treatments from the surgeon should be sufficient to undo all the bad effects of a long standing and chronic condition. The first duty of the surgeon, therefore, is to sell to the patient a "proper bill of goods," and in such manner as to leave no doubt in the patient's mind of the many possibilities and, above all, not to leave with the patient an impression that the situation is a relatively minor affair. These are the cases which in many ways tax the ingenuity of the surgeon, especially when the economic status of the patient is much involved, which is often the case.

In those cases where chronic ulcer of long standing is present, secondary infection is invariably present in one degree or another, and before any plan of treatment can be instituted it is necessary that the patient be hospitalized for a few days and vigorously treated until infection can be brought under control. This can be best done perhaps by elevation of the limb and the application of some form of antiseptic wet dressing. Ordinary sterile normal saline solution I have found to be an excellent medium. During this period the surgeon will have an opportunity to study the patient and the offending venous system as well. Lues should be ruled out, anemia corrected if present, and if there is avitaminosis, corrective measures should be taken. Above all, diabetes must be ruled out in all cases of chronic and intractible ulcers of the legs, in spite of the fact that varicosities may seem to be the etiology. In the vast majority of cases, radical surgery cannot be contemplated for one reason or another. One of the chief complications preventing surgical interference in varicosities is the presence of obstruction of the deep femoral ~~circulation~~, and return circulation is by way of the saphenous. There are from time to time other reasons than this why surgery cannot be used. In these cases the Unna or Sooey boot is of considerable value in splinting the tissues, reducing the swelling and giving the patient a general sense of security and well being. In most cases where ulceration exists of not too severe a degree, if one of these boots is properly applied, improvement may usually be expected after a period of two or three weeks of treatment.

However, in using these boots some degree of skill is necessary. The material is in the form of a thick paste which must be warmed in a double boiler, or water bath, before application. It is then painted on the limb, beginning with the foot. An ordinary paint brush may be used for this, the foot and leg is then wrapped or enclosed in a layer of gauze bandage. This must be smoothly applied, no rolls or wrinkles allowed, perhaps best being applied in short sections of gauze bandage. The idea is to give support and not to constrict. After the first layer of gauze bandage, another layer of paste is applied and so on, until about three or four layers of gauze and paste have been applied, the last covering to be gauze alone held on by spiral strips of adhesive tape. The patient may wear this from ten days to two weeks depending on the activity of the patient. In some cases the odor may become objectionable to the patient and for this reason the boot may need changing earlier. After considerable improvement is obtained by use of the boot, one may change to Ace bandage to be worn constantly, except when in bed, with continued good effect.

In those cases with severe ulceration with secondary infection, and in which surgery is contemplated, one need not wait for the ulcer to begin the process of healing, nor indeed for all of the secondary infection to clear up, only for this to do so partly. If the ulcer is not too chronic and intractible, healing will progress during ambulatory treatment following surgical procedures.

I will not attempt to go extensively into the several technics in use today. Many operators feel that much of the vein should be stripped away with the vein stripper. Personally, I do not feel this is necessary, although I have done this procedure a number of times. The technic I usually follow, however, is not original, but I have found it in general very satisfactory in the majority of cases. It consists of combined high saphenous ligation with multiple excision of indicated segments, followed in ten days or two weeks by injection of remaining small varicosities with sodium morrhuate solution as indicated. The patient is given only moderate sedation and the leg is shaved and prepared, including the pubic region, before being carried to the operating room. In the operating room, the skin is further prepared with some form of antiseptic solution—a combination of ether and alcohol followed by merthiolate is very satisfactory—after which the leg, or both legs as the case may be, is draped for unilateral or for bilateral high ligation. I have found no contraindication to doing both sides during the same operative period. Just prior to placing the patient on the table, with the patient standing, I have found it very helpful to make such areas as are thought to be suitable places for diversion, ligation and removal of vein segments. Aside from the saphenofemoral junction, it is often necessary to ligate and remove a segment in the midthigh region medially, and again medially and laterally just below the knee, the lateral segment from the short saphenous when involved, and in some instances again in the calf region, but well back from the crest of the tibia. These sites are usually the greatest number of segments that need be considered in a given case.

As an anesthetic, 1 per cent novacain solution is quite adequate, and this is injected in the skin and subcutaneous tissues in a sufficient quantity. At the groin region I have found an obliquely transverse incision placed about one finger's breadth below the crease and about two or two and one-half inches in length to be sufficient in most cases. As we know, the long saphenous lies beneath Scarpa's fascia surrounded by fat tissue in this region and is usually not difficult to pick up. The vein is lifted from its bed by blunt dissection, clamped, and divided where found. The distal segment is followed downward below the superficial medial and lateral femoral, these small vessels being divided and ligated, after which the main body of the distal segment is clamped, divided and ligated, and no further attention is given the distal segment in this region. The proximal segment is now followed into the region of the femoral fossa, ligating as found. The small vessels which join the main vein in this region, and the proximal portion of the saphenous is clamped, a segment is removed, and the stump is ligated within the femoral fossa. Distal to the primary ligature, a transfixation suture is used on all major vessels and silk is used throughout. However, care must be used in lifting or tugging on the stump or the femoral vein may be injured and hemorrhage result, or the femoral vein may be lifted so high it becomes occluded in part, at least in the ligature, and much damage ensue as the result of a too diligent effort to tie the stump short. Closure of the skin incision here is with two or three interrupted sutures in Scarpa's fascia. The skin is then closed with end on end mattress sutures and interrupted sutures of fine silk. The area is cleansed with ether, a very small piece of gauze is placed over the incision and a piece of elastoplast is stretched and placed firmly over the area and held firmly until it adheres to the skin. Ligation and excision of segments below are carried out through very short transverse incisions over the vein sites at points of election. The stumps are ligated with a primary ligature, with a transfixation suture distal in each case and the skin is closed with two or three interrupted sutures only. Dressings are with small pieces of gauze affixed in position with elastoplast. Dressings of this type are the most satisfactory possible, I think, for ambulatory patients. In those cases where there is a small ulcer, two five-yard three-inch Ace bandages are used to encase the entire limb, after properly dressing such an ulcer. The patient is then to be ambulatory from the beginning, walking at least fifteen minutes of each two hours, except for six or seven hours for sleep each night. This is to be kept up for a period of ten days or two weeks. At this time, or about the time all the skin sutures are removed, any remaining varicosities may well be seen and injection of these begun. In most cases which are not of the most severe degree, three or four injections are sufficient.

In those cases of chronic and intractible ulceration, one, of course, cannot follow this plan entirely, but it is advantageous to ligate in these cases as early as possible, after which every effort is exerted to prepare the ulcer bed for grafting, and in many cases it is advisable to excise the old ulcer bed entirely. As a usual thing the ulcer bed can be prepared in about one week. A very satisfactory type of graft for these areas, and the method

I most frequently apply, is a Padgett split thickness graft, removed with the Padgett Dermatome, of 0.016 up to 0.022 of an inch in thickness, removed possibly from the anterior medial aspect of the thigh, and affixed firmly to the prepared bed by interrupted sutures of fine silk, with a moderately firm compression dressing applied over vaseline strips placed directly over the grafted area, which is not to be disturbed for six or eight days. However, ulcer beds of some considerable size may in many instances be handled very successfully with Davis' pinch grafts. These are dressed in much the same manner as described for the Dermatome grafts. I have found vaseline gauze a very splendid dressing to apply directly over the grafts of either type. All of these patients should not only have local supportive treatment in the form of an Ace bandage well supplied, but should have in addition iron and vitamin therapy as a general supportive measure to aid healing and promote the general well being of the patient.

CONCLUSIONS

(1). Patients suffering from varicose veins and their complications are individual problems.

(2). Anatomy and physiology pertaining to the veins of the lower extremities are reviewed.

(3). Methods of diagnosis and diagnostic tests are discussed.

(4). Combination high saphenous ligation, with subsequent injections of sclerosing solution in any remaining veins is recommended.

(5). Treatment of chronic ulceration of the legs by excision of the ulcer and grafting is discussed.

(6). All patients should have supportive measures as indicated.

Some Unusual Aspects of Tularemia as Found in Mississippi*

L. R. MURPHREE

Aberdeen, Miss.

TULAREMIA, otherwise known as deer fly fever, rabbit fever, or as Francis disease, is an acute infectious disease found primarily in animals but transmissible to man, which is caused by the Pasteurella tularensis. It is characterized by the development of a primary ulcer and by the formation of the tubercle-like necrotic foci in the lungs, liver, spleen and lymph nodes.

We find records of this disease as seen in market men dating back almost forty years, for in 1907 Martin in a personal letter reported five cases. The first published reports were by Pearse, in 1911, who called the condition deer fly disease. The causative agent Pasteurella tularensis was isolated and described by two public health workers, McCoy and Chaplin, who in California in 1912 in Tulare County made the discovery and called the disease tularemia from the county in which the discovery was made in squirrels. Wherry and Vail described the condition in man. Francis then in 1919 put all this together and described the condition found in the lower animals and transmitted to man.

As said above, tularemia is primarily a disease of lower animals, chief among which is the rabbit and included are the sheep, coyote, cats, quail and squirrel. Insect vectors are commonly the deer fly, ticks, fleas, lice and the horse fly. Horses, cattle, dogs and chickens are immune. Cases have been reported from ingestion of contaminated water supply, as well as inhalation of droplets, air borne as in the laboratory. Man to man infection is rare.

Until 1915 only fifteen cases had been reported in the nation. Due to better recognition of the disease and to its spread, by 1932 there were reported 1502 cases with forty-one deaths in the nation. In 1925 the disease was reported in Japan. More than a thousand cases were reported in Russia in 1929 due to floods there that year. Few cases were reported in Mississippi prior to 1940 at which time seven cases with five deaths were reported. 1941 saw forty cases with two deaths, 1942 fifty cases with five deaths, 1943 with sixty-five cases and three deaths, while in 1944 eighty-three cases were reported. The majority of these cases gave a history of handling rabbits while a few gave a history of having been bitten by the tick. The seasonal incidence of this disease coincides with the rabbit season, so to speak, or in December and January.

The pathology of this condition is the typical ulcer which is found at the site of infection and the areas of focal necrosis in the lymph nodes, spleen, liver and lungs. The lesions in man are granulomatous in nature and identical with those in animals. The liver and the spleen are enlarged and studded with discrete or confluent, pinhead-sized, white spots, tubercles. The presence of numerous grayish white flecks in the liver and spleen is suggestive of miliary tuberculosis. The cut surfaces show similar changes; the centers of the larger nodules are necrotic and depressed. In some cases one or the other organ may be free from the macroscopic nodules. Similar changes are often found in the various lymph nodes especially those draining the primary site. Histologically submiliary areas of focal necrosis are found similar to the macroscopic lesions. They are composed of collections of epithelioid cells, proliferated reticulo-endothelial cells and multinucleated cells. Typical giant cells of the Langerhans type are rarely found, karyorrhexis and necrosis are found in the center of the nodules. Pasteurella tularensis in clumps and in vast numbers can often be demonstrated in animal tissue but with difficulty in human tissue. The organisms are found both intracellularly and extracellularly. The primary ulcer shows unspecific diffuse necrosis, nuclear fragmentation and polymorphonuclear cell infiltration. Lymphangitis and suppuration of the regional lymphatics and lymph nodes may occur. The lungs frequently contain nodules of focal necrosis or patches of pneumonia characterized by a monocytic infiltration and exudation. The tracheobronchial lymph nodes are frequently enlarged. General peritonitis, pleurisy with effusion, ulcerations in the caecum, meningitis and encephalitis have been observed.

Clinically there is usually described four general types, namely the ulceroglandular, the oculoglandular, glandular and the typhoid types. The most common type is the first named and is characterized by first pain in the region of the regional nodes with chills, fever, headache and general prostration. This is followed by definite enlargement of the regional nodes and the formation of a papule at the primary site of infection. This papule rapidly breaks down and later heals by filling in with scar tissue. The glands may go on to suppuration or may remain firm and hard for several months and completely disappear. There is an associated lymphangitis and occasionally there may be some nodulations along the lymphatics which will simulate sporotrichoses. Weakness and loss of weight, recurring chills, sweats and prostration are often noted during the active stage of disease lasting from two to three weeks. The oculo-glandular follows the above course except for the primary lesion being in the conjunctival sac either unilateral or bilateral with involvement of the post-auricular and the cervical nodes. The typhoid type is characterized only by fever and prostration and the diagnosis is made only by the agglutinations.

The temperature curve is rather significant in that there is an initial rise lasting a day or two with its return to normal. This is followed in a day or two by the secondary rise with this remaining constant for two or three weeks. In certain patients evidence of bronchitis and pneumonia is manifested by pain in the chest, cough and bloody sputum. The symptoms of pneumonia may dominate the picture and obscure the diagnosis unless careful studies are made, for the pneumonia is of the atypical form. Specific meningitis and peritonitis do occur. Severe shifting joint pains with some skin eruptions can occasionally be seen. Vomiting, abdominal pains and tachycardia can be seen. According to Willis signs of pneumonia offer a poor prognosis and this has been the case in my experience.

Diagnosis is made from the clinical picture above with the history generally of the contact with infected animals or insects with the positive agglutinations. The State Board of Health, by doing these agglutinations routinely, has done a lot toward making the diagnoses in many cases. It is interesting to note that there are cross-agglutinations with the brucella abortus and melitensis. There is mild to no leucocytosis with the count of twelve to sixteen thousand being the rule.

Treatment is as a rule symptomatic. Specific therapy with 10 cc of a 1:1000 aqueous solution of metaphen has been suggested. The use of specific serum prepared by Fosay has been suggested but not proved effective. The sulfa group is ineffective as are the arsenicals. Penicillin has proved ineffective in this condition. Surgical excision or incision of affected nodes is advised only after marked fluctuation is noted. The primary site will heal spontaneously.

The purpose of this paper is to review the literature on the subject and to report three cases which were unusual in that they were rather difficult in their diagnosis.

Case One. This was a colored male who entered the hospital with the complaint of sore mouth and throat and high fever, which had been present for one week. For three days he had been unable to take nourishment. Physical examination revealed a dehydrated colored male of 24 years of age with temperature of 103° on admission. Examination was negative except for the large hypertrophied tonsils with a granulating mass on one. Blood count and urinalysis were noncontributory. Agglutinations for tularemia were positive in dilutions of 1:1280. He was given intravenous fluids, blood transfusions, neoarsphenamine, and sulfadiazine and seemed better until the tenth hospital day when he developed some pleural effusion and an atypical pneumonia and became rapidly worse and expired.

Case Two. This was a colored female aged sixteen who was seen and treated in the home due to crowded conditions in hospital. She had a chief complaint of fever, pain in abdomen, and diarrhea. Physical examination showed well developed girl of sixteen with a temperature of 106° who was quite irrational. Her tonsils were hypertrophied but not inflamed. Chest was normal. Abdomen showed generalized tenderness. Diagnosis of typhoid fever made but blood and stools and urine were negative. The second week of illness the tonsils became inflamed and the temperature continued to spike to 105° daily. Repeat agglutinations in the third week of illness showed a positive agglutination of 1:10,240. Fever gradually declined till in fifth week when it became normal. X-ray in fourth week showed an area of pneumonitis in right upper lobe. Eight weeks after onset patient was almost normal again except for generalized weakness. Therapy in this case consisted only of aspirin and increased vitamin intake.

Case Three. This was a white female of 23 years with a chief complaint of mass in neck and sore throat, of three weeks' duration. There was some fever at the onset but patient did not feel ill and did not stop her regular activities. Physical examination revealed a well developed white female with only the enlarged angular node and the hypertrophied tonsils. There was no response to the sulfa therapy and agglutinations were positive 1:640 for tularemia. Nodes returned to normal in three to four months.

The history in all of the above cases was absolutely negative for contact with rabbits, ticks, squirrels or flies. There had been no initial lesions at all. In fact there was nothing in their histories suggesting contact with any infected animals.

Conclusions. The current literature regarding diagnosis, symptoms, and treatment of tularemia is reviewed. Three cases are reported which were a bit unusual in that all showed hypertrophy of tonsils, all gave no history of contact with an infected animal. Two were unusually severe and one was fatal.

BIBLIOGRAPHY

Simpson, W. M. Tularemia, November, 1929.

Little, R. D. Pathology of Tularemia; Nat. Inst. Health Bul. 1937.

Blackford, S. S. Pulmonary Manifestations of Tularemia, J. A. M. A. 1935 104-89.

Byfield—Tick-Borne Tularemia, J. A. M. A. 11-27, 1945.

Musser, J. H. Textbook of Medicine.

Foshay, L; Summary of Certain Aspects of Tularemia including Methods of Diagnosis.

Frances, E; Source of Infection and Seasonal Incidence of Tularemia.

No Place for Him

A young lawyer from the North sought to locate in the South. He wrote to a friend in Alabama, asking him what the prospects seemed to be in the city for "an honest young lawyer and Republican."

In reply the friend wrote: "If you are an honest lawyer, you will have little competition. If you are a Republican, the game laws will protect you."

Cancer*

WILLARD H. PARSONS, M.D.**
Vicksburg, Mississippi

GRIM EVIDENCE of the importance of this subject is offered by the fact that 165,000 individuals in the United States have died, or will die, of cancer during the year 1945. During the preceding year in the state of Mississippi 1570 persons died of this disease.

During the six-month period of this from June 1, 1945, to November 30, 1945, there were examined in the laboratories of pathology of the Vicksburg Hospital, Inc., (exclusive of necropsy tissues) a total number of 1624 tissues and of this number 115 represented malignancies. Of this group of malignancies 55 involved the skin, the breast, the external genitalia or the cervix uteri. In all of this group the lesions from their very inception were subject to inspection, to palpation and to the performance of biopsy and presumably therefore in each instance the correct diagnosis could have been made sufficiently early almost to have guaranteed cure if treatment by appropriate means were provided.

Of the remaining group of malignancies seen at this hospital during the period of time referred to a considerable number involved the gastrointestinal tract. There are few locations in the body that a neoplasm if present cannot be demonstrated reasonably early in its course by physical examination and roentgenologic study. It is true that the examinations must be properly conducted and the roentgenologic studies must be made by one adequately trained and experienced in the field of roentgenology.

It is apparent that the tragedy of cancer is not that it **cannot** be diagnosed but that it **is not** diagnosed. The tragedy of cancer is not that it **cannot** be cured but that it is not diagnosed sufficiently **early** to be cured. Unless and until general practitioners recognize the importance of eliciting a thorough history and of making a complete physical examination, and until clinicians insist upon a proper roentgenologic study the diagnosis of cancer will continue to be made late if at all. Until the indication for, the technic of, and the enormous value from biopsies is appreciated, positive early diagnoses will not be established and patients having early and easily curable lesions will be cured with great hazard if at all.

Unless and until the above considerations are met a very high incidence of patients coming to surgeons and to roentgenologists for treatment will be found at the time they are first seen by these individuals to carry already in their hands the candle of death; to have set upon their foreheads the seal of dissolution. At no time is the responsibility of attending physicians greater than in the care of patients having or suspected of having neoplasms.

---

*Written at request of the Mississippi Division of The American Cancer Society.

**From the Departments of Pathology and Surgery of the Vicksburg Hospital, Inc., and The Vicksburg Clinic.

* * * * *

There is no good in arguing with the inevitable. The only argument available with an east wind is to put on your overcoat.

—JAMES RUSSEL LOWELL

* * * * *

A modesty in expressing our sentiments leaves us a liberty of changing them without blushing.

—BISHOP THOMAS WILSON

The Mississippi Doctor

Published monthly at Booneville, Mississippi.
Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D............Editor-in-Chief
MILDRED P. ANDERSON........Assistant Editor

David E. Guyton, Blue Mountain College......Poet

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.

A. F. Cooper, M. D. .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

E. M. Holder, M. D. C. R. Crutchfield, M. D.
F. M. Acree, M. D. H. King Wade, M. D.

Lawrence W. Long, M.D.
J G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

The function of a hospital is not to treat people, but to furnish a place for doctors to treat them.

§

What would it profit a state to multiply its hospitals and their capacities and then have not the doctors to staff them?

§

Why should our government not send the returned soldier to the local hospital and have him treated and pay for it as has been done for many of the wives of soldiers?

§

Every practitioner should have in his office a trained nurse. It is not that a doctor does not know oftentimes, but that a nurse can increase his efficiency. She can help him examine people, help him treat them, help him practice preventive medicine by education, help him along the way of financial success, and help him uncover the diamonds of service in his office from the dust and under the rust. In terms of medicine a nurse can help him to serve cornbread as if it were pound cake, that is, if she has the brain to think, the will to work, and some of the spirit of Florence Nightingale.

§

Mississippi has a fine distribution of hospitals. This is very important. Each county should have hospital facilities sufficient to take care of its sick, either in its own county or an adjoining county. A big district hospital is too expensive. When people have to travel even fifty miles to a hospital the total expense to the patient is too much when all cost is counted. It is just the same economy as to require all the people in the county to go to the county seat for their mail instead of having just a few to deliver it to them.

§

Jackson is the crossroads of the deep South and the fastest growing city within its confines. It now has a population of more than seventy-five thousand, which within just a few years will be doubled. A four-year medical school with the last two years located in Jackson, would augment further the usefulness of this hospital, which in turn would supply clinical material.

§

The morale of the nurses and the attendants at a hospital, the good atmosphere they create, inspires the patient to live and makes good business for the hospital also.

§

FOUR-YEAR MEDICAL SCHOOL

The chief claims of the opposition to the four-year medical school are that we have no town in Mississippi large enough to furnish clinical material for the last two years. On investigation it has been found that some of our very best medical schools are in towns much smaller than Jackson, about ten out of the nation's total of sixty-eight schools. The University of Iowa at Iowa City, one of the nation's best medical schools, is in a town which has a population of 17,182. Charlotte, where the University of Virginia is located, has only 19,400. The University of Michigan, which is most outstanding, is located in Ann Arbor, a city of only 29,000.

The opposition also claim that having a school in our state will not give us any more doctors, but Tennessee, Arkansas, and Louisi-

and average one doctor to every one thousand population, while Mississippi has one to twenty-five hundred. These states have medical schools, two in Louisiana.

The opposition aver that we should first spend millions of dollars on hospitals. Multiplied hospitals without properly trained doctors to staff them would be a waste of founds and very dangerous to the people. The training of doctors and the further development of hospitals should go hand in hand.

The opposition say that Mississippi is not able to add two years to the two years it already supports. When this two-year school was organized, and it has been one of the best in the nation, we were plowing with a bull tongue plow on a Georgia iron-foot plow stock with a small mule, one man working maybe ten acres; today in the rich Delta by machinery one man is working and gathering one hundred acres. Our state now stands first in an arterial system of concrete roads, second in cotton production, third in timber, tenth in oil, has the biggest pecan industry in the nation, the best health department, one of the best hospitals for tuberculosis, a good medical journal and stands at the very top in democratic leadership for the nation. With these progressive facts before us it is an insult to our fine boys to say that we must farm them out with other schools for the last two years in medicine.

Our population is increasing by leaps and bounds. The nation must add a number of schools or enlarge the ones it has. If every other Southern state can have from one to three schools, surely we are not so lacking in vision nor so niggardly at heart to contend that our state continue to work on the halves, medically speaking.

Mississippi should have an affiliated hospital system whose chief purpose should be to serve the people and at the same time to train nurses and interns, part time in the small hospital and part time in the large. Consultation service should be carried out to the practitioner and his patients in the community hospitals. Our hospitals should be open so as to secure the benefits of the Blue Cross insurance. The bill both for hospital and doctor must be paid by the government for the very low income group.

Mississippi has a great opportunity to show the way around state medicine. The responsibility right now is upon our legislature. But if the doctors of the state will assert themselves and show that they have the vision of medical service to the people we will at this session of our lawmakers have a four-year medical school established.

§

FROM DR. BRYAN

Dear Dr. Anderson:

I have accepted my invalidism in the most philosophic way possible to me and I am living, largely, in retrospect. During the more than half century that I have practiced medicine, I have met, known, and loved a great many doctors. Not one of these have I ever regarded as a rival or competitor, but rather as a partner and coworker in a great undertaking. A suggested thought has caused me to undertake something which will, if successful, be the crowning effort of a long and ill-spent life. It is this: I am asking each reader of your journal, whether he resides in Mississippi or beyond her borders, to send me his or her photograph accompanied by a very brief biographical sketch—name, address, date of birth, marriage, date and school of graduation, etc. These I promise to arrange, preserve and handle with care and reverence. This collection I will regard as my mental garden of roses. It will be my great delight to take frequent strolls through its lanes and avenues. I will, also, take great pleasure in showing it to any and all who may be interested in it. This collection, I think, will increase in value after both those pictured and I have passed on. I am asking you to carry this communication in the columns of your journal and to call editorial attention to it.

Yours sincerely,

G. S. BRYAN,
Amory, Mississippi

News and Comment

SOUTHEASTERN SURGICAL CONGRESS

For the first time in its history, the Southeastern Surgical Congress, which has a membership of 600, will meet in Memphis March 11 through March 13 at the Peabody Hotel.

The Congress which last met in 1942, will be attended by doctors from Tennessee, Kentucky, Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Louisiana, and West Virginia.

Dr. Alton Oschner, professor of surgery at

Tulane University, New Orleans, is president of the group, and Dr. B. T. Beasley of Atlanta is secretary general. Dr. R. L. Sanders of Memphis is general chairman of the meeting.

Committee chairmen are as follows:

Auditorium and Commercial Exhibits Committee—Dr. Arthur R. Porter, Jr.; Clinic Committee—Dr. C. Harold Avent; Entertainment Committee—Dr. Thomas D. Moore; Hotel Committee—Dr. Ernest G. Kelley; Publicity Committee—Dr. H. K. Turley; Reception Committee—Dr. Morton J. Tendler; Transportation Committee—Dr. Joseph H. Frances; Ladies' Entertainment Committee—Mrs. Jewell M. Dorris, chairman; Mrs. Michael W. Holehan, cochairman.

The following are a partial list of those who will take part on the program:

Dr. Conrad G. Collins, New Orleans; Dr. Merrill N. Foote, Brooklyn; Dr. Clarence E. Gardner, Durham; Dr. James E. Hemphill, Charlotte; Dr. Robert Hingson, Jr., Staten Island; Dr. Arnold Jackson, Madison, Wis.; Dr. Roy R. Kracke, Birmingham; Dr. Karl A. Meyer, Chicago; Dr. J. O. Morgan, Gadsden, Ala.; Dr. Curtice Rosser, Dallis; Dr. Harold E. Simon, Birmingham; Dr. G. L. Simpson, Greenville, Ky.; Dr. Horace G. Smithy, Charleston, S. C.

The medical profession is invited to attend the assembly. For information write Dr. B. T. Beasley, secretary-manager, Atlanta 3, Ga.

ANNOUNCEMENT

Dr. Henry G. Hill announces that arrangements have been made with Dr. William T. Howard to open permanently his offices at the Henry G. Hill Clinic, 847 Madison, Ave., Memphis Tennessee, practice limited to orthopedic and traumatic surgery.

NEW PUBLICATION

Announcement of a new publication the *Quarterly Review of Pediatrics,* is of interest to the profession. The prime function of this little journal, which appears the first time in February, is to make it feasible for the busy physician to keep abreast of the most recent progress in all branches of pediatrics with a minimum of time and effort. The *Quarterly Review of Pediatrics* serves also as an authoritative guide to original sources when more detailed information is desired.

Address communications to Irving J. Wolman, M.D., Editor-in-Chief, The Children's Hospital, 1740 Bainbridge Street, Philadelphia 46, Pa.

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The New Orleans Graduate Medical Assembly, ninth annual meeting, will be held in New Orleans April 1-4, at the Municipal Auditorium. The program will consist of lectures by sixteen outstanding guest speakers, clinics, symposia, clinico-pathologic conferences, roundtable luncheon discussions and technical exhibits. Registration fee of $10.00 covers all features, including three luncheons. Physicians who plan to attend are invited to register at once with the Secretary, Room 105, 1430 Tulane Avenue, New Orleans 13, Louisiana. Information regarding hotel reservations will be sent upon receipt of registration fee or by request.

MEDICAL GROUP ELECTS

Paris, Tenn., Jan. 13.—Dr. Henriette Veltman has been elected president of the Henry County Medical Society for 1946 to succeed Dr. Elroy Scruggs. Other officers include Dr. W. G. Rhea, vice president; Dr. R. G. Fish, secretary. Dr. R. J. Perry of Maryville was chosen delegate to the state medical meeting. Dr. Fish was elected alternate.

NEW INSTRUMENT

American Optical Company announces it is making available to the profession the new Root nearpoint tachistoscope, latest instrument for improving visual preception by exposing figures and other visual stimuli at near point for fractions of a second.

CONDITIONS GOVERNING POSTGRADUATE FELLOWSHIPS

Offered by the Commonwealth Fund to General Practitioners

Fellowship aid shall be limited to honorably discharged physicians who have seen service for six months or longer, since 1940, in the armed forces of the United States, and who plan to take up residence and to practice in a community having a population of 25,000 or less, situated in Mississippi, Oklanoma, or Tennessee.

The Fund shall assume no responsibility for the registration of a fellow in a particular course; this arrangement must be made by the individual with the institution where the work is offered. Courses shall be taken in a continuous term and shall not depart from the approved schedule without special authorization.

The applicant shall be a graduate of a reputable medical school and have completed a satisfactory internship. He shall furnish a record of a recent physical examination, and a personal interview with a member of the Fund staff may be required.

The rate of the fellowship shall be uniform at $100 a month for the duration of the award, one to four months. Application for fellowship shall be made on forms furnished by THE COMMONWEALTH FUND, Division of Public Health, 41 East 57th Street, New York 22, N. Y.

Physicians who qualify may be considered for a fellowship which provides postgraduate study for one to four months at an approved institution. The course or courses of study shall be subject to approval by the Fund and may include general medicine and diagnosis, pediatrics, obstetrics, medical gynecology, or minor surgery, or combinations of two or more of these subjects.

MISSISSIPPI ONCE HAD A FOUR-YEAR SCHOOL

Once during the twentieth century, Mississippi had a four-year medical school located at Meridian. After a number of years of successful operation, it was closed in 1911, when the legislature failed to provide funds for its maintenance.

Today twenty-five of the graduates of the school are living and practicing medicine in the state.

In a bulletin printed in 1909 by the school (page 8, Mississippi Medical College Catalog) the following statement is made: "The large number of medical students who in the past have been forced to leave their home state in quest of a medical education, and the many young Mississippians, men and women, who are already engaged in the study of medicine and surgery and who contemplate doing so are unanswerable evidence of the imperative need for a school of medicine in the state, with a full curriculum, where all the branches of the healing art can be taught and demonstrated."

It is believed that if the medical school had been continued and had hospitals and clinics been established where physicians could work, the state today would not be facing a shortage of physicians.

Of the graduates listed in the 1909 catalog of the medical school 66 per cent practiced in Mississippi, that is, ten out of fifteen who graduated. The five who did not practice in Mississippi practiced in Alabama, Tennessee, and Florida.

The following Mississippi physicians attended and/or graduated from the medical school at Meridian; Dr. J. B. Ainsworth, Raymond; Dr. T. C. Alford, Mashulaville; Dr. E. E. Busby, Brookhaven; Dr. D. J. Dubose, Purvis; Dr. W. D. Franklin, Walnut Grove; Dr. J. S. Hickman, Meridian; Dr. L. W. Hood, Biloxi; Dr. J. W. Horn, Lucedale; Dr. W. W. Irby, Meridian; Dr. E. Lovorn, Louisville; Dr. D. W. McDonald, Meridian; Dr. S. S. McIlwain, Pascagoula; Dr. S. T. McIlwain, Waynesboro; Dr. R. R. McNease, Sumrall; Dr. G. M. Martin, Stonewall; Dr. T. C. Oliver, Leland; Dr. A. Potasnic, Meridian; Dr. P. C. Risher, Laurel; Dr. E. R. Shurley, Money; Dr. J. F. Simmons, Greenville; Dr. H. P. Smith, New Augusta; Dr. H. H. Tabor, Weir; Dr. H. A. Thigpen, Bay Springs; Dr. L. W. Walker, Auburn; and Dr. R. M. Webb, Canton. Several other physicians received a year or more of their medical education at the Mississippi Medical College.

Since the closure of the medical college, no provision has been made for graduation of medical students in the state. Students must still leave the state to complete their medical education and serve internship.

PHYSICIANS RETURNED FROM MILITARY SERVICE

Dr. F. M. Acree, Greenville
Dr. A. L. Adam, Poplarville
Dr. A. H. Applewhite, Columbia
Dr. J. A. Atkinson, Brookhaven
Dr. J. W. Austin, Forest
Dr. T. A. Baines, Jackson
Dr. D. Baugh, Columbus
Dr. O. H. Beck, Greenville

Dr. M. D. Berman, Jackson
Dr. G. L. Biles, Sumner
Dr. L. B. Brackstone, Corinth
Dr. E. V. Bramlett, Oxford
Dr. R. H. Brumfield, McComb
Dr. G. A. Campbell, West Point
Dr. V. J. Canizaro, Biloxi
Dr. W. L. Chambers, Pickens
Dr. H. L. Cockerham, Jr., Shelby
Dr. J. E. Coe, Leland
Dr. W. H. Cook, Meridian
Dr. W. W. Crawford, Tylertown
Dr. E. W. Crocker, Calhoun City
Dr. H. K. Curry, Eupora
Dr. R. T. Dabbs, Aberdeen
Dr. W. M. Dabney, Amory
Dr. J. T. Davis, Corinth
Dr. J. G. Dees, Jackson
Dr. R. H. DeJarnette, Corinth
Dr. R. L. Donald, Meridian
Dr. C. F. Dorsey, Brookhaven
Dr. H. C. Dorris, Winona
Dr. T. S. Eddleman, Jackson
Dr. J. S. Edmondson, Vardaman
Dr. E. T. Ellison, Greenville
Dr. Roscoe Faulkner, Batesville
Dr. L. C. Feemster, Jr., Tupelo
Dr. J. H. Fox, Jackson
Dr. C. L. Gaston, Jr., Meridian
Dr. H. B. Goodman, Cary
Dr. Donald S. Hall, Vicksburg
Dr. James L. Hall, Vicksburg
Dr. F. J. Harrell, Jr., Biloxi
Dr. Andrew Hedmeg, Pascagoula
Dr. B. R. Heninger, Gulfport
Dr. J. R. Hightower, Itta Bena
Dr. J. A. Hull, Indianola
Dr. R. L. Holley, Jr., Oxford
Dr. F. D. Hollowell, Jr., Jackson
Dr. H. L. Howard, Winona
Dr. R. P. Hudson, Utica
Dr. L. B. Hudson, Hattiesburg
Dr. A. D. Hurt, Corinth
Dr. Nathan F. Kendall, Jackson
Dr. C. R. Jenkins, Laurel
Dr. W. N. Jenkins, Port Gibson
Dr. J. R. Johnson, Jackson
Dr. W. C. Jones, Macon
Dr. J. J. Kazar, Tchula
Dr. C. F. Lacey, Thomastown
Dr. E. L. Laird, Union
Dr. A. R. Lee, Tylertown
Dr. J. H. Leigh, Lexington
Dr. J. L. Levy, Clarksdale
Dr. C. J. Lewis, Meridian
Dr. N. B. Lewis, Vicksburg
Dr. C. M. Lobrano, Vicksburg
Dr. J. R. Markette, Brookhaven
Dr. R. C. Massengill, Brookhaven
Dr. F. C. Massengill, Brookhaven
Dr. G. S. Mason, Lumberton
Dr. E. A. Melvin, Gulfport
Dr. C. B. Mitchell, Whitfield
Dr. D. H. Moore, Meridian
Dr. J. A. Murfee, Amory
Dr. L. L. McCharen, West Point
Dr. J. E. McDill, Jackson
Dr. S. S. McNair, Jackson
Dr. W. W. Nobles, Tunica
Dr. W. E. Noblin, Jr., Jackson
Dr. P. H. Parker, Meridian
Dr. J. G. Peeler, Shaw
Dr. C. D. Pritchard, Marks
Dr. Thomas Purser, Jr., McComb
Dr. R. B. Ray, Kosciusko
Dr. E. D. Reynolds, Clinton
Dr. O. E. Ringold, Cleveland
Dr. M. H. Robertson, Corinth
Dr. T. E. Ross, Hattiesburg
Dr. H. K. Rouse, Jr., Gulfport
Dr. G. A. Rush, Jr., Meridian
Dr. E. W. Ryan, Charleston
Dr. F. M. Sandifer, Greenwood
Dr. J. H. Scott, Carthage
Dr. W. P. Sheely, Gulfport
Dr. W. H. Simmons, Jr., Jackson
Dr. F. M. B. Slater, Jackson
Dr. R. W. Smith, Canton
Dr. M. M. Snelling, Gulfport
Dr. W. L. Stallworth, Columbus
Dr. R. A. Street, Jr., Vicksburg
Dr. C. Thompson, Jr., Columbia
Dr. E. A. Thorne, Holly Springs
Dr. H. M. Wadsworth, Hernando
Dr. B. N. Walker, Jr., Jackson
Dr. C. E. Ward, Jackson
Dr. R. B. Warriner, Jr., Corinth
Dr. W. J. Weatherford, Pascagoula
Dr. J. A. Westerfield, Merigold
Dr. H. A. Whittington, Natchez
Dr. H. M. Williams, Aberdeen
Dr. T. R. Williams, Tchula
Dr. J. K. Wilson, Hollandale
Dr. W. S. Witte, Leland
Dr. Edwin H. West, Lucedale
Dr. J. W. Williams, Ingomar
Dr. J. C. Wilson, Hollandale
Dr. T. E. Wilson, Jr., Jackson
Dr. J. G. Young, Holly Springs

Total — 118

TULANE UNIVERSITY SCHOOL OF MEDICINE

March 11-May 25, 1946

Review of General Medical Practice

March 18-23—Disease of the Cardiovascular System. March 25-30—Pulmonary Disease. April 1-6—No classes. April 8-13—Urinary Disease. April 15-20—Disease of the Nervous System. April 22-27—Nutritional and Metabolic Disease. April 29-May 4—Infectious Diseases. May 6-11—Neoplastic Diseases. May 13-18—Obstetrics and Gynecology. May 20-25—Traumatology.

The courses will include both the medical and surgical approach, anatomy and physiology will be reviewed, and usually there will be one prominent guest speaker.

Application for all or any of the one-week courses should be made directly to:

Dr. H. W. Kostmayer, Director
Tulane University School of Medicine
New Orleans, Louisiana

The tuition of $25 a week may be met under the G. I. Bill by securing a certificate of eligibility from Mr. J. L. Easom, Veteran's Administration, Jackson 107, Mississippi, using the Rehabilitation Form 1950. No scholarships are available at the present time through the Mississippi State Board of Health.

ANNOUNCEMENT

DR. THOMAS E. WILSON
announces
his return to private practice

INTERNAL MEDICINE
and
CARDIOLOGY

Medical Clinic Bldg.
910 North State Street, Jackson, Miss.

Health foundations for health centers should be the order of the day in our state, especially for the small town.

Deaths

DR. JOHN E. DAVIS

Funeral services for Dr. John E. Davis, 79, prominent Columbus physician and surgeon died unexpectedly at his home December 15. Dr. Davis had been in ill health for some time.

Born in Crawford in 1866, he was the son of James and Hester Agnes Hemphill Davis. A graduate of State College at Starkville, he received his degree in medicine at Tulane University where he was first honor man. He was sent by the state of Louisiana to Honduras to make a study of yellow fever.

Completing this work, he returned to Columbus to practice and opened the Davis Infirmary. He later built and operated the Columbus Hospital. A doctor of "the old school," to his patients he was more than a physician—a family friend and counselor as well. During this period he earned a national reputation as a diagnostician.

He served with the Medical Corps in World War I and was a survivor of the torpedoed ship *Georgic,* when he was taken prisoner by the Germans. After the war ended he returned to Columbus and resumed his practice until ill health caused his retirement in recent years, bringing to a close an outstanding medical career.

He is survived by his widow, Mrs. Vernon Waller Davis; a sister, Mrs. Rupert Richards of Crawford; two nieces, Mrs. B. T. Collier of Tuscaloosa and Mrs. D. D. Stephenson of Birmingham; two nephews, S. J. Webb of Los Angeles, Calif., and James H. Webb of Denver, Colo.

DR. LEWIS C. JONES

Funeral services for Dr. Lewis C. Jones, 84, of Madison were held in Jackson, December 31, 1945, from Wright and Fergerson funeral chapel.

Dr. Jones, a native of Brownsville, has been in medical practice at Madison for more than fifty years. He was a graduate of Louisville Medical College, Louisville, Ky., in 1886.

DR. Y. E. GORDON

After an illness of several months Dr. Y. E. Gordon, prominent physician and citizen of Bucatunna, died at the family home there in October. He was 85.

Dr. Gordon, who had practiced his profession in Chicora and Bucatunna for the past half century, is survived by his widow and the following children: Jesse C. Gordon, of Bucatunna; Sampie, of Virginia; Walter Gordon, Mrs. C. C. Thames and Mrs. Sanson, of Mobile. Brothers surviving: Eugene, of Enterprise, and Mark of Pachuta.

DR. J. W. ECKFORD

Funeral services were conducted January 7 at Starkville for Dr. James William Eckford, beloved retired physician, who died in a hospital there. He had been in ill health since his retirement three years ago and had been in the hospital ten days.

Dr. Eckford practiced medicine in Starkville 47 years and it was estimated he delivered more than 3000 babies.

The services at the Methodist Church were conducted by the Rev. Phil Grice and the Rev. J. D. Ray.

Dr. Eckford leaves two sons, Dr. J. F. Eckford and J. W. Eckford, Jr., of Starkville, and three daughters Mrs. L. S. Lundy, Front Royal, Va., Mrs. Beulah McFarlane, Cleveland, Miss., and Mrs. William Jones of Rio de Janeiro.

Born at Soule Chapel in Noxubee County, Dr. Eckford was the son of Dr. J. W. and Fannie Lucas Eckford. He attended public school in Macon and the old Southern University in Greensboro, Ala. He received his M. D. from Tulane in 1895 and moved to Starkville a year later.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—James G. Thompson, Jackson.

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—J. F. Lucas, Greenwood.

Orthopedics—Thomas H. Blake, Jackson.

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—Karl O. Stingily, Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

PEDIATRICS

HEPATIC DAMAGE IN INFANTILE PELLAGRA—Theodore Gillman, M.Sc., M.B., BCh. and Joseph Gillman, M.B., B.Ch., Johannesburg, South Africa.

The authors state that during the last three years nearly 300 children suffering from acute malnutrition have been admitted to the Non-European Hospital, Johannesburg. More than 60 per cent of these infants manifested the clinical signs of pellagra.

They have found in their experience that vitamin therapy has not only failed to save the lives of more than 50 per cent of these children but in many instances they have strongly suspected that it aggravated the disease and even hastened death. Trowell, prominent worker in this field, has also recorded the unresponsiveness of this disease to vitamin therapy, including nicotinic acid. In these circumstances, therefore, it is essential to seek some other method of saving the lives of children suffering from severe malnutrition. The authors give the following conclusion and summary relative to this subject:

1. By means of liver biopsies we have established that, on admission to the hospital, the livers of infantile pellagrins show various degrees of fatty change; in severe cases almost every liver cell is distended by a single globule of fat. Liver biopsy is indispensable in establishing the prognosis and in assessing the effectiveness of any form of therapy.

2. The reactions of the liver to vitamins, liver extract and dried stomach have been studied in a selected series of 20 infantile pellagrins with comparable hepatic lesions on admission.

3. In severe cases the administration of vitamins intensified the accumulation of fat in the liver cells. Every one of the 7 cases treated with vitamins terminated fatally.

4. Although liver extract rich in the Cohn fraction is superior to vitamins, the fat is depleted from the liver slowly despite the clinical recovery. Only two of the seven cases in this group ended fatally.

5. Dried stomach in 10 gm. doses daily in combination with hydrochloric acid leads to spectacular recovery of the patient and loss of edema fluid. Moreover, the fat in the liver disappears rapidly and almost completely in every instance. All of the patients treated with dried stomach recovered.

6. Although the fat content of the diet is low, there is a massive accumulation of fat in the liver, and it is excreted in large amounts in the feces despite the emaciation of the rest of the body. It is suggested that, in infantile pellagra, carbohydrate is converted into fat which cannot be utilized.

7. We conclude that the administration of vitamins in severe nutritional edema associated with pellagrous lesions in infants can be extremely dangerous and is contraindicated.

8. On the basis of the results obtained in our carefully selected cases, dried stomach is the most valuable therapeutic agent available for the treatment of severe infantile pellagra. Since dried stomach causes the rapid depletion of fat from the liver, it must be regarded as a vigorous lipotrope.

9. In children discharged as clinically cured, their biopsy has revealed the existence of residual liver damage, the extent of which is determined by the severity of the initial lesion and the nature of the therapy.

10. Recurrent attacks of subclinical and overt malnutrition result in progressive

hepatic damage. These repeated insults are in no small measure responsible for cirrhosis and probably for primary carcinoma of the liver so frequently encountered in young Negroes in South Africa.

COMMENT

We feel that the above article is quite interesting and should be read and evaluated by every practitioner of medicine not only in this state but practically the southern states. It is our opinion that along with many other dietary deficiencies that the presence of pellagra in children exists many more times than we have formerly thought. We have seen many of these cases which made us think very seriously about the presence of this disease when least suspected.

PUBLIC HEALTH

Hilleboe, H. E.—"THE RESPONSIBILITY OF THE PRIVATE PHYSICIAN IN TUBERCULOSIS CONTROL." *Minnesota Medicine,* vol. 28: 935, November, 1945.

The importance of the general practitioner in the control of tuberculosis among private patients is emphasized by the findings of the Public Health Service in chest x-ray surveys conducted among more than a million industrial workers and by the discovery of a relatively high incidence of the disease among rejectees of the armed forces.

Eight mobile x-ray units, operated by the Tuberculosis Control Division of the Public Health Service in various parts of the country, found that three in every 200 persons examined had x-ray evidence of reinfection tuberculosis—active or inactive. Sixty-five per cent of the lesions were in minimal stage, 30 per cent in moderately advanced stage and 5 per cent of the lesions in far-advanced stage. Pre-induction examinations by Selective Service alone revealed 150,000 cases with x-ray evidence of tuberculosis.

That the family physician will be called upon to treat a great majority of these persons is borne out by the experience of the U. S. Public Health Service and of the National Tuberculosis Association and its affiliates. In industrial surveys an overwhelming number of workers who could afford private care designated their family physicians—general practitioners—as the doctors to whom the report of the x-ray findings should be made. When these reports are sent out they are accompanied by a request that the physician confirm or disprove the x-ray findings by further clinical studies—such as history and physical examination, laboratory tests and repeated x-ray examinations. He is also asked to examine contacts and to report the new cases of tuberculosis to the local health department.

The average patient has a great deal of confidence in his private physician and expects him to treat tuberculosis just as he would accept other family medical emergencies. Psychological factors make this desirable and practical considerations make it feasible, especially if the physician possesses sufficiently broad understanding of tuberculosis and modern therapeutic methods. Sanatorium care is no longer the only method of tuberculosis control. Many minimal lesions and a limited number of inactive advanced lesions are amenable to outpatient supervision under strict medical care. This supervision and care can often be rendered by the alert general practitioner who possesses modern knowledge of the diagnosis and treatment of tuberculosis.

The demand for this type of care is expected to increase rapidly as mass radiography units penetrate all sections of the country, uncovering a large number of unsuspected cases of pulmonary tuberculosis that will need medical supervision—before and after sanatorium care.

The personal experience of actually having a chest x-ray will stimulate thousands of individuals to seek medical care, from general practitioners, chest specialists and radiologists, either for tuberculosis or for other chest conditions found on survey examinations.

Through their vast nationwide educational program, their case-finding and rehabilitation work, which are supported by the sale of Christmas Seals, the National Tuberculosis Association and its affiliated groups will continue to awaken communities to the dangers of the disease. As a result, communities will provide the armamentarium needed for the proper care of the tuberculosis patient—hospital beds, clinics, laboratories, rehabilitation service, extensive chest surveys and generous social assistance for the dependents of the tuberculosis patient.

The by-product of coöperative plans of public agencies and voluntary associations will provide new aids for the physician in private practice—x-ray, laboratory and consultation services, as well as opportunities for postgraduate training. With these aids he will be better equipped to meet the increasing demands of the tuberculosis patient for his services.

As x-ray surveys become an annual routine in many communities, more and more minimal lesions will be found, and, conversely, fewer advanced lesions, which now, in most cases, require immediate sanatorium care. The reversal of the old ratio will shorten and simplify therapy for the larger proportion of tuberculous patients, will assure quicker and more complete treatment, and greatly increase the chance of vocational rehabilitation.

A better distribution and greater expansion of clinic, x-ray field services and laboratory facilities will bring modern diagnostic aids within the reach of every general practitioner in urban and rural areas. New, well-equipped sanatoria, more accessible to population centers, and accredited for residency training, will provide postgraduate training of great value to the general practitioner. Research laboratories and demonstrations devoted to the evaluation of old and new therapeutic methods and clinical concepts about tuberculosis have already been established and will be increased in number. From these efforts it is hoped additional aids will be forthcoming for the physician, not only to control but to eradicate the White Plague within a measurable time.

State Board of Health

Felix J. Underwood, M.D.

PROTEIN IN THE DIET

by

MARY STANSEL

Nutritionist

The value of protein in the diet has been receiving considerable attention in current contributions to medical literature as more and more individuals report detailed accounts of their observations and experiences.

Diets more adequate in protein are seen as a fundamental need among all income groups in Mississippi. Prevailing food shortages affecting the supply of milk, lean meat and eggs, which are excellent sources of protein, are bound to have an adverse effect upon the diet if long continued; hence every effort should be made to increase the production of these foods to meet the current need.

Protein is important in the diet, because:

1. Since protein is part of all body tissues and most body fluids, it is essential for both growth and maintenance.
2. It is necessary for building and maintaining normal hemoglobin.
3. It is an essential part of hormones and enzymes.
4. Increased protein is essential for the well being of the expectant mother and her baby.
5. There is an increased demand for protein in illness. High protein intake to correct any protein deficiency is important in edema, shock, surgical conditions and infections.
6. Many of the substances associated with resistance to infection within the body are proteins.
7. Serum proteins regulate the osmotic pressure relationships within the body.
8. Protein-rich foods are important for their high content of vitamins and minerals as well as protein.
9. An excellent supply of protein helps protect the liver from damage from such toxic agents as chloroform and arsphenamine.

Some Foods That Supply Protein

Milk, 1 pt.	16 gms.
Dried skim milk (2 oz.)	20 gms.
Lean meat, cooked (3½ oz.)	25 gms.
Egg, one	6 gms.
Cheese, yellow (1 oz.)	7 gms.
Pinto beans, cooked (¾ cup)	10 gms.
Bread, 1 slice	3 gms.
Potato, (5 oz.)	3 gms.

Liver is the best lean meat one could choose for his protein, with hog liver being higher in food value than calf liver. Fish and poultry are also excellent sources. Lean pork provides liberal quantities of thiamine and need not be taken from the diet during pregnancy, although salt fat pork and bacon, which count as fat, should be limited due to the high salt content.

Mississippi, long rich in agricultural resources, seems to lag far behind in the production of foods essential to the health and welfare of its population. To correct this situation, the people themselves must first understand and appreciate the value of adequate nutrition. The physician, the public health worker, and the schools have a real responsibility in getting across to them the fundamentals of this important science.

******

The Mississippi Public Health Association held its ninth Annual Meeting in Jackson, December 10-12, with more than six hundred members in attendance. Presided over by Dr. C. M. Shipp, President, many timely and interesting papers were presented in public health and related topics. Guest speakers included: Dr. C. C. Applewhite, New Orleans, La.; Lieut. Col. Mary D. Forbes, Nurse Officer, Dist. 4, U.S.P.H.S., New Orleans; Dr. Thomas L. Hagan, New Orleans; Miss Helen M. Howell, Associate Professor of Public Health Nursing, Vanderbilt University, Nashville, Tenn.; Dr. Edgar Hull, L.S.U. School of Medicine, New Orleans; Mr. T. E. McNeel, New Orleans; Dr. W. H. Y. Smith, Montgomery, Ala.; Mr. H. C. Taylor, New Orleans, La.; Dr. R. B. Turnbull, Gallatin, Tenn.; Dr. Francis J. Weber, Washington, D. C. The "President's Night" featured an exceedingly interesting address by the Honorable Carl Marshall, to which the public was invited and many attended.

Dr. A. L. Gray, Director of the Division of Preventable Disease Control, succeeds Dr. Shipp as President of the Association, and Dr. H. B. Cottrell, Supervisor of the Field Unit, Jackson, was reëlected Secretary-Treasurer. Mrs. Beatrice Butler, Jackson, for many years with the Division of Public Health Nursing, was made President-elect.

THE TULANE UNIVERSITY OF LOUISIANA

School of Medicine
New Orleans 13

Dear Dr. Underwood:

Returning veterans, as well as practitioners in general, have frequently requested a rather general review. Accordingly, we have finally set up a review of General Medical Practice, which I wish to describe briefly.

Beginning March 11, 1946, we will give ten weeks of instruction using both the medical and surgical approach. Each week will be devoted to a special topic as listed below:

March 11-16—Diseases of the Cardiovascular system. (A special evening course from 8 to 10 p.m., will be offered provided not less than ten register).

March 18-23— Pulmonary Diseases.

March 25-30—Gastrointestinal Diseases.

April 1-6—No Classes.

April 8-13—Urinary Diseases.

April 15-20—Diseases of the nervous system.

April 22-27—Nutritional and Metabolic Diseases.

April 29-May 4—Infectious Diseases.

May 6-11—Neoplastic Diseases.

May 13-18—Obstetrics and Gynecology.

May 20-25—Traumatology.

In most instances physiology and anatomy will be reviewed and usually there will be at least one prominent guest speaker. The week of April 1st, will be without classes as other local postgraduate activities will provide ample opportunities during that week. The fee will be $25.00 per week and registrants may take as many weeks as they see fit. The Veterans Administration will approve this opportunity as coming under the so-called G. I. Bill of Rights.

Sincerely yours,

H. W. Kostmayer, M.D.,
Director.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	Nov. 1945	Nov. 1945	Nov. Five-Yr. Average
Acute Poliomyelitis	11	3	6.6
Bacillary Dysentery	330	473	415.4
Dengue	0	0	.2
Diphtheria	120	89	76.4
Measles	202	96	245.4
Meningococcus Meningitis	12	9	7.8
Other Forms Meningitis	2	2	2.6
Pneumonia	1179	1051	1179.6
Pulmonary Tuberculosis	148	137	117.4
Scarlet Fever	126	84	94.4
Smallpox	5	0	1.8
Tularemia	2	3	2.2
Typhoid Fever	2	8	7.0
Typhus Fever	16	19	13.2
Undulant Fever	5	0	1.6
Whooping Cough	452	471	556.4

Woman's Auxiliary

President	Mrs. L. J. Clark	Vicksburg
President-Elect	Mrs. Stanley Hill	Corinth
First Vice-President	Mrs. H. C. Ricks	*Jackson*
Second Vice-President	Mrs. Henry Boswell	Sanatorium
Third Vice-President	Mrs. W. H. Anderson	Booneville
Recording Secretary	Mrs. Geo. W. Owens	Jackson
Fourth Vice-President	Mrs. Ben Walker	Jackson
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey Garrison	Jackson

FROM OUR PRESIDENT

Dear Auxiliary Members:

Greetings and every good wish for the new year. Let us make an earnest effort to work anew for our medical auxiliary, as important work, imperative duties are awaiting us.

The second conference of the Woman's Auxiliary to the American Medical Association was called to order by the president, Mrs. David W. Thomas, the fifth of December at nine o'clock.

The pledge of loyalty opened the meeting and was most impressive as nearly forty women repeated it in unison.

Everyone's attention was directed to the roll call by states, beginning with our neighboring states of Alabama and Arkansas and ending in the far west with Wyoming. Each delegate stood as her state's name was called.

Two delegates from Mississippi were present, Mrs. Stanley Hill, your president-elect, and your president. Our state has been honored by the selection of a most capable director, Mrs. V. B. Philpot. It was regretted that circumstances prevented her attendance at the second Conference.

Dr. Malcolm T. McEachern, president-elect of the Chicago Medical Society, spoke most interestingly and brought greetings from his society.

Minutes of the 1944 Conference were read and approved. You were represented at that meeting by your president-elect, Mrs. Stanley Hill, your director from Mississippi on the national board, Mrs. V. B. Philpot, and your president.

Mrs. David W. Thomas gave a cordial address of welcome, which was followed by the election of the Conference chairman, Mrs. R. E. Mosiman, of Seattle, Washington, who had also served as chairman of the first one.

Mrs. Thomas gave an excellent report of the progress and achievements of the auxiliary during the very hard years of war.

Instructive and enlightening reports of committee chairmen were heard also. The reports of the presidents and presidents-elect were outstanding. Our state reports compared very favorably with those of other states, except in membership and benevolence.

Dr. Joseph Lawrence, executive director of the Washington office, gave a talk upon the big problem of political medicine facing the medical profession. He urged the doctors' wives to keep up community relationships.

Dr. W. W. Bauer, director of the Bureau of Health Education of the A. M. A., was introduced by our legislative chairman, Mrs. Luther H. Kice. Dr. Bauer explained the fourteen-point program adopted by the medical association and urged the delegates to inform themselves upon this program.

For the second time in the history of the Medical Auxiliary a resolution was given to the group by the House of Delegates of the American Medical Association. The other resolution was on the promotion of *Hygeia*.

The second resolution is such an important one I shall pass it on the you as given and as follows:

WHEREAS, The object of the Woman's Auxiliary is to aid the American Medical Association in every way requested, and

WHEREAS, The most urgent need of the present time is for widespread dissemination of knowledge concerning the hazards of current medical legislation, therefore

Be It Resolved, That the House of Delegates of the American Medical Association requests the Woman's Auxiliary to use every avenue possible to bring such information to its members and through them the public.

What are we going to do? Are we going to sit idly by and let the public get the wrong information concerning current medical legislation, or shall we give the people the true facts? I urge you as doctors' wives to do your part in this important work.

Cordially,
ANNE CLARK, president.

AUXILIARY MOTHER DIES AT LONG BEACH RESIDENCE

MRS. D. J. WILLIAMS

Mrs. Daniel J. Williams, 61, a resident of the Mississippi Coast since 1912, died about 8:15 A. M. January 16 at her residence, Glenwood, on East Beach, Long Beach. She had been in ill health for about two years.

Mrs. Williams, née Maude Hepler, was born in Washington, Ind., on March 16, 1883, the daughter of Mr. and Mrs. Sam Hepler.

Dr. Williams, health officer at Port Gibson, Miss., and formerly director of the Harrison County health department, was at her bedside.

Mrs. Williams was a member of the Methodist church. She was long active in civic and community affairs and was a member of the Gulfport Woman's Club, serving as president for several years. She was also a member of the Long Beach Garden Club, Daughters of the American Revolution, United Daughters of the Confederacy, and the Coast Medical Auxiliary.

Mrs. Williams was presented a trophy on April 10, 1939, in recognition for her outstanding service to the community during 1938. Particular achievements mentioned included her leadership in caring for the Gulfport Doll and Toy Fund, general chairman in issuing the Mississippi Coast Guide book, and her work toward making Harrison County and Gulfport a better place in which to live.

She was active in the annual Doll and Toy Fund work for approximately 25 years.

When Mrs. Williams was taken by death the Gulf Coast lost one who had done much through many years for the betterment not only of her own community but of the entire state. She was a woman of much initiative, and leadership came to her naturally. Her broad outlook and direct approach were perhaps influenced by diverse conditions of ancestry and places of residence. Both her Revolutionary and Confederate ancestry were of North Carolina, she being a descendant of William Millikin who gave service in the War for American Independence, and the daughter of Samuel Hepler who was captain of a North Carolina company in the War between the States. Mrs. Williams was educated at the St. Joseph Academy of Missouri and afterwards went into training for the nursing profession. She was graduated from Wentworth Hospital, St. Joseph, Missouri, and following a few years service was married in 1918 to Dr. D. J. Williams, an outstanding physician of the state and a recognized authority on public health problems.

She came to make her home on the Mississippi Coast, where she lived until her death. Their beautiful Long Beach home has been a center of hospitality and many distinguished guests have been entertained there.

§

The foregoing briefly summarizes the lifework of our Auxiliary mother, our organizer and honorary president of the state organization. Members of the Auxiliary know her as counselor and guide, untiring in her motherly direction and devotion to the growing organization. Rarely was Mrs. Williams absent from a meeting, and rarely was a policy adopted by the group that did not originate with her or depend on her for promotion. Her guiding spirit will be there in May to inspire, to encourage and to commend.

Our hearts are bowed in homage to a leader whose place we shall to revere, but while we bless her memory, we shall lift high the torch which to us is flung.

Complete for Secondary Anemia

ONE PINT
H1946
WARREN-TEED
ELIXIR
LI-BETAFERRON
(Elixir Liver, Vitamin B Complex and Iron)
Alcohol 10%
Each fluidounce contains:
KEEP TIGHTLY STOPPERED IN A COOL PLACE, PROTECT FROM LIGHT
THE WARREN-TEED PRODUCTS CO.
COLUMBUS 8, OHIO

IRON

LIVER

VITAMIN B COMPLEX

Elixir Li-Betaferron is a hematinic and tonic for the treatment of secondary anemias; complete with readily assimilable iron—whole liver concentrate—vitamin B complex in a new high potency. Check the Li-Betaferron formula—each fluidounce contains:

Alcohol 10%

Liver Concentrate 1:20	1.42 Gm. (21.875 grs.)	Riboflavin	6 mg.
Iron & Ammonium Citrates, Green	2.00 Gm. (30 grs.)	Nicotinamide	60 mg.
Thiamine Hydrochloride	18 mg.	Pantothenic Acid	4.5 mg.
		Vitamin B_6 (Pyridoxine)	1.8 mg.

and the other vitamin B complex factors as present in liver.

WARREN-TEED

Medicaments of Exacting Quality Since 1920

W BY ANY TEST T Pharmaceuticals

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Carcinoma of the Stomach

ROBERT M. ROTH, M.D., M. S.
Staff Surgeon, Gamble Bros. and Archer Clinic
Greenville, Miss.

MEDICAL REFERENCES to carcinoma are countless. Since no organ is exempt from the ravages of malignant degeneration all have been described in detail. There have been articles, chapters, monographs, and even books devoted to the subject of gastric carcinoma. Yet, this should not shackle attempts continually to renew our concepts and stimulate alertness. The generally accepted pessimistic attitude of the profession toward the established poor results of the treatment of the disease is one in need of revision. Day by day it becomes more evident that imputable delay in diagnosis and consequently in early surgical intervention is an all too common occurrence.

The gravity of a condition which claims approximately 35,000 lives annually in the United States and accounts for from 20 per cent to 30 per cent of all deaths due to carcinoma needs very little emphasis to be impressive. It is pre-eminently a disease of middle life. This takes on added significance when we view our declining birth rate and the increase in the average life expectancy. In addition is the fact that the most recent report of the United States Public Health Service showed that deaths due to all types of carcinoma are increasing in all sections of the nation. The disease is much more common in males than in females and accounts for almost one-third of all carcinomas affecting men. In both sexes, the stomach is the most frequent site of carcinoma in the alimentary tract. The greatest number of patients are between the ages of fifty to sixty years, but all ages have been reported.

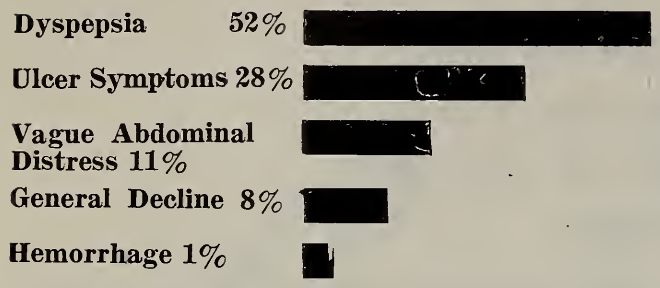
There are many features of the disease which cause consternation. Without a doubt, the fact that we are dealing with an equation in which the unknown X is the etiologic factor in carcinomas in general, is greatly responsible for this pessimistic attitude. The lack of this knowledge precludes the possibility of producing the disease experimentally. These two factors combined offer the greatest obstruction to diagnosis and treatment. The problem becomes increased, when, added to this, is the insidious nature of the disease, the high grade of malignancy in most of these lesions, and the tendency of the patient to defer seeking early medical advice.

In recent years, there have been some important observations made concerning the etiology of gastric carcinoma. Most pathologists today support the idea that carcinoma rarely, if ever, develops in an intact normal gastric mucosa. It has been established that gastric ulcers, adenomatous gastric polyps, and chronic inflammatory changes in the gastric mucosa are probably precursors to gastric carcinoma. In addition, we now know that a certain percentage of benign gastric tumors will undergo malignant degeneration. Further, since liver therapy has been introduced into the treatment of pernicious anemia, thus prolonging the lives of these patients, there is evidence that there is an increased predisposition for gastric carcinoma in such people. The pathogenesis of the malignant change is undoubtedly associated with disorganized hyperplasia of the mucosa cells. Knowing these things, the initiating of early prophylactic measures now offers a promising influence on diagnosis, prognosis and treatment.

We are well acquainted with the insidious nature of this disease and its multiple manifestations. There is an enormous amount of statistical evidence to support this. The most comprehensive statistical study made over a large group of patients was recorded in 1942 by Doctors H. K. Gray, W. Walters, and J. T. Priestley in their book, *Carcinoma of the Stomach.* These conclusions were drawn from 10,890 patients observed with gastric carcinoma at the Mayo Clinic between the years 1907-1938.

FIGURE I refers to the first presumptive symptoms caused by gastric carcinoma.

FIRST SYMPTOM EXPERIENCED

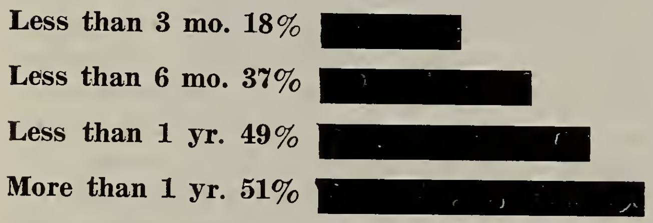


80 per cent obtained "effective" symptomatic relief following palliative treatment for "ulcer."

In over 50 per cent of the cases, indigestion was the first disturbance noted. In almost 30 per cent it was the recurrent pain of ulcer-like character. The vagueness of early symptoms is one of the reasons for late diagnosis.

FIGURE II shows that in more than half of the cases the lesion had been causing symptoms for more than a year prior to the time of surgery. The vagueness of early symptoms makes for late diagnosis and the late diagnosis is without a doubt the most important reason for unfavorable results of treatment.

INTERVAL FROM FIRST SYMPTOM, TO OPERATION



Of equal importance with the late diagnosis is the extent to which the disease might progress before it causes symptoms at all. Of the 10,890 patients observed, 4,648 patients or 43 per cent of the total group were considered inoperable at the time of primary examination. Of this group, 26 per cent were from those whose symptoms had existed for an average period of only three months.

We, as physicians, take on a tremendous responsibility to avert this tragedy of inoperable carcinoma of the stomach. We are not blameless and it is distressing that physicians, today, are still so perfunctory in spite of all that has been contributed to the early diagnosis of gastric carcinoma. We are obliged to become acquainted with the fact that small or circumscribed, innocent-looking ulcerous gastric lesions may be actually or potentially malignant. One problem which will never be solved and one which has caused great controversy is how many carcinomas originate in ulcers and how many ulcers undergo malignant degeneration. Stewart meets about the mid-point of agreement when he states that 9.5 per cent of all chronic ulcers become carcinomatous and 17 per cent of carcinomas have their origin in chronic gastric ulcers.

Through repeated observation in the examining and x-ray room and in the pathologic laboratory certain diagnostic conclusions of relative value in the differentiating of benign and malignant ulcers of the stomach have developed. The typical benign ulcer is small. Ninety per cent are less than one inch in diameter, 90 per cent are single, and 90 per cent are on the posterior wall near the lesser curvature. In addition they have familiar x-ray characteristics. In a patient less than thirty years of age who has a small, single gastric ulcer near the lesser curvature associated with 40 units of free hydrochloric acid following a test meal, is **usually** benign. The benign nature of the disease may be accepted if there is permanent disappearance of all symptoms and signs when subjected to adequate medical treatment. This is true regardless of age of patient or size or location of the lesion. However, if this response is not achieved, if the lesion is large or exhibits the pathognomonic meniscus sign on x-ray, if it is near the pylorus on the greater curvature and particularly in old persons with late onset of symptoms, an exploratory operation should be done with the intent of gastric resection in view.

The former and present day prospects for cure have greatly changed. In 1885 Welch had made his extensive study of the problem. His conclusion was most pessimistic and is best expressed in his statement that "no patient subjected to resection survives longer than one and one-half years." From this time until about 1910 there was but little accomplished and almost thirty years after Welch's paper, Friedenwald presented 1,000 cases observed by him in which radical operation was performed in only 3.3 per cent. Since then advances in laboratory technique and in the x-ray have aided materially in bettering the prognosis. FIGURE III shows the disposition regarding operability of the 10,890 patients previously referred to.

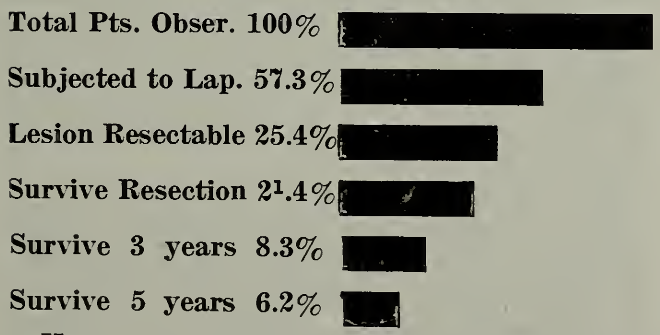
DISPOSITION OF PATIENTS WITH RESPECT TO OPERABILITY

10,890 Patients Observed.	**Inoperable**	**4,648** **43%**
SUBJECTED TO SURGERY **6,242** **57%**	**Exploratory Lap.**	**2,431** **22%**
	Palliative Opr.	**1,039** **10%**
LESION RESECTED **2,772** **25%**		

In only 57 per cent of the cases observed was surgery warranted and of these, 44 per cent proved resectable so that 25 per cent of the original group received the benefits of resection. This leaves much to be desired but does show marked improvement over that situation which existed in the late eighteen hundreds. These improvements are a reflection of the modern laboratory, the vigilance of the diagnostician and the boldness of the surgeon in his acceptance of cases with obvious extensive involvement.

What then is the fate of the patient who today develops a gastric carcinoma? FIGURE IV shows a progressive depletion as observed following diagnosis with only about 6 per cent surviving the five-year test period.

FATE OF PATIENTS WITH GASTRIC CARCINOMA TODAY



However, those with resectable lesions have a much better outlook and those without metastasis still better. Patients with a low grade carcinoma which has not metastasized have a good chance (59 per cent) to regain health. Today, this favorable condition is not seen often enough. Only about one quarter have resectable lesions and one-half of these have metastasis. This explains the low percentage of total patients observed who survive the five-year period. It is reasonable to believe that as diagnoses are made earlier higher survival rates will be obtainable. It is this end to which the medical profession must strive.

In conclusion then, let us not view with complacency a problem of so grave a nature. We must be ever mindful of the predisposing factors of gastric carcinoma so that early prophylactic measures might be taken. Especially those patients around forty years who for the first time complain of dyspepsia or ulcer-like symptoms, who are anemic, or who show gradual general decline must receive the benefits of all of the diagnostic recourses at our disposal. If a gastric ulcer is discovered, no matter how small or innocent-looking, it must be subjected to rigid adequate medical treatment. If a permanent disappearance of all signs and symptoms is not achieved, laparotomy must be performed with radical resection in view. It is only through vigilance and the adequate use of our enhanced diagnostic and therapeutic knowledge that progress can be made.

BIBLIOGRAPHY

1. Carcinoma Of The Stomach—1942. Gray, Walters, Priestley.
2. Importance of Cancer as a Cause of Chronic Dyspepsia—Collected Papers of the Mayo Clinic XXXI, 1939—A. B. Rivers.
3. Association of Pernicious Anemia and Carcinoma of the Stomach. Archives of Surgery 45:554-563 (Oct.) 1942—P. C. Doehring and G. B. Easterman.
4. Carcinoma of the Stomach: Early Recognition and Results—Journal of Iowa State Medical Society 33:1-5 (Jan.) 1943—James .T. Priestley.
5. Gastric Ulcer, Carcinomatous Ulcer or Ulcerating Carcinoma? Annals of Surgery, 115:521-529 (Apr.) 1942—Waltman Walters.
6. Carcinoma of The Stomach: A Challenge To The Profession—G. B. Easterman. Collected Papers of the Mayo Clinic XXXII, 1940.
7. Carcinoma of Stomach, 645-689. Gastroenterology —Backus.
8. Text Book of Pathology—Bell.
9. The Surgical Treatment of Cancer Masquerading as Benign Disease—W. Walters, W. H. Cleveland. Minnesota Medicine 23:709-711 (Oct.) 1940.

> Be not prodigal of your opinions, lest by sharing them with others you be left without.
>
> —Ambrose Bierce

Acute Intestinal Obstruction in Infants and Children: Physiologic-Pathological Considerations

ROBERT M. MOORE, M.D.

Vicksburg, Miss.

There are no essential differences in the acute intestinal obstructions of infancy and childhood, and those occurring in adults, except insofar as etiological factors are concerned. MacCallum[1] has stated, "No matter what the mechanism in which occlusion of the intestine is produced, the effect is fairly constant, and varies only with the completeness and situation of the obstruction." McGehee[2] has emphasized, "The essential pathology of acute intestinal obstruction is: edema and spasm producing blockage, followed by distention, producing a reverse peristalsis (clinically manifested by vomiting) with a final result of water loss, dechlorination and toxemia." Bartlett[3] has also stressed the importance of edema and spasm of the intestine as final factors in mechanical obstruction.

In general, in acute intestinal obstruction, that portion of the tract below the site of obstruction soon empties and becomes collapsed. The part above the obstruction rapidly becomes distended from an accumulation of foul smelling gas and fluid, the latter swarming with bacteria; and even when there is no obvious obstruction to its circulation the wall of the intestine becomes so stretched as to become paralyzed and discolored from venous congestion. Edema results as the venous congestion becomes greater. Later ulcerative necrosis of the intestinal mucosa may develop, and this is often associated with actual tears in the muscularis and peritoneal covering of the intestine. MacCallum[1], citing Kocher, calls these ulcers distention ulcers. It has been thought that toxins and even bacteria might pass through these weakened areas in the intestinal wall to produce a toxemia or peritonitis, as the case may be. However, as MacCallum[1] points out, there is no such profound injury to the intestinal wall in many instances, and no peritonitis, yet there are violent and severe symptoms of toxemia.

As a general rule, the symptoms of toxemia are more severe when the obstruction exists high up in the small intestine than when it occurs in the rectum or sigmoid colon. Too, according to MacCallum[1] the symptoms of acute obstruction are much more severe when strangulation due to the sudden shutting off of the blood supply is superimposed on the obstruction.

Two main theories, based on clinical observation and animal experimentation, exist concerning the production of this toxemia. Cannon and Murphy[4], Whipple, Stone and Bernheim[5], Whipple and Cooke[6], and others have placed emphasis on the absorption of a toxin or toxins originating in the intestines or intestinal contents above the obstruction as the cause of the toxemia. Haden and Orr[7], Gatch, Trusler and Ayres[8], Burgess, Walsh and Ivy[9], Moss and McFetridge[10], and others have emphasized the chemical and physical changes occurring in the blood and other tissues secondary to vomiting, which is so characteristic of acute intestinal obstruction, as responsible for the toxemias.

In recent years the toxin theory of obstruction toxemia has largely given way to the chemical theory that toxic symptoms are due to altered salt and water concentrations in the blood and other tissues from vomiting, and to increased tissue destruction as manifested by an increase of the blood N.P.N. over and above that expected by associated depressed renal function.

As McGehee[2] has so plainly written, excessive vomiting not only removes large amounts of water, but also electrolytes, principally chlorides and fixed base; and leaves an excess of sodium radicals in the blood which makes possible the retention of more carbon dioxide, thus accounting for the increased CO_2 combining power of the plasma. The excessive loss of fluids from vomiting results in a concentration of the blood plasma; and the attempted compensatory withdrawal of tissue fluids to replace the plasma is reflected in the general state of dehydration (dry skin and shrunken subcutaneous tissues).

---

*Read before the Meeting of the Issaquena-Sharkey-Warren Counties Medical Society, Vicksburg, Miss., February 12, 1946.

**Pathologist and director of the Clinical Laboratories, Vicksburg Hospital and Clinic, Vicksburg, Mississippi.

This fluid loss may so greatly increase the viscosity of the blood that it seriously interferes with the respiratory and other functions of the blood, and depresses renal function. A consistent finding in acute intestinal obstruction is, according to McGehee[2], an increase up to 1000 per cent in the blood N.P.N., which is manifested chiefly as an increase in the urea fraction. McGehee[2] further states, "It seems certain that the increase in blood N.P.N. is not altogether or mainly a retention phenomenon. Despite the diminished renal function, there is an increase in nitrogen excretion which may be four or five times the normal. These facts are indicative of an intensive increase in tissue destruction. Dehydration of the tissues is the most likely explanation, although the action of some circulating toxic factor is not precluded."

From the pathological standpoint, the acute intestinal obstructions of infancy and childhood may be included in the clinical-etiological classification of Wangensteen[11], in which the twenty-odd causes of acute obstruction are grouped under four main types, namely: (a) mechanical, (b) adhesive, (c) strangulation, embracing intussusception, hernia, and volvulus in the order mentioned, as the most common of these types.

In summarizing the frequency of occurrence of the different types of obstruction in relation to age periods, Bolling[12] briefly states that in infants, at birth or immediately afterwards, intestinal obstruction usually means an imperforate anus, atresia of the intestine, or a congenital volvulus. After this period and up through the second year intussusception is the most frequent cause of acute obstruction. Characteristic of this period also, but occurring much less frequently, is the acquired volvulus. After the second year, acute obstruction is most commonly due to strangulation of an internal or external hernia. Obstruction from postoperative bands and adhesions, the impaction of a foreign body, occur next in frequency. These findings are more or less in agreement with the findings of Vick[13]. The actual pathological changes occurring in the different types of strangulation merit a more detailed study:

1. **Intussusception.** Invagination of one portion of the intestine into another is the most common single cause of acute obstruction in infancy and childhood. McIver[14], quoting Ladd and Cutler, and Peterson, state that 86 per cent of all cases of acute obstruction occurring in this age peeriod are due to intussusception. It occurs spontaneously, and is thought to be due to a hyperactive gut though Moore[15] states, "There is usually no evident cause."

As a rule the intussusception is single, and, as might be expected, the direction of the invagination is naturally in the direction of peristalsis; though an occasional retrograde invagination is encountered. The oldest and perhaps the most simple classification of intussusception divides it into three types, namely: (a) enteric, in which the small intestine alone is involved, 10 to 15 per cent; (b) colonic, in which invagination of the colon alone occurs, about 6 per cent; and (c) ileocecal, in which the terminal ileum, cecum and ascending colon are involved. This is by far the most common type, and includes prolapse of the ileum through the ileo-cecal valve.

In many of these types the portion which is invaginated drags with it its mesentery, while the portion which receives the invaginated part becomes so stretched that it constricts its contents; especially at its beginning or upper end, where the mesenteric mass is most bulky, it forms a tight ring constricting the mesenteric veins. This results in the production of a hemorrhagic infarct in the two internal folds of the invaginated gut. Due to the early venous stasis, blood and lymph escape into the lumen of the intestine, as well as into the wall, thus accounting for the melena so characteristic of this condition, and increasing the bulk of the invaginated portion. In a few instances the invaginated portion is said to become completely detached from the intestinal wall and later to be expelled per rectum, but this must be of rare occurrence.

2. **Hernia.** The second most common cause of acute intestinal obstruction in infants and children is, according to McIver[14], strangulation of an internal or external hernia. The hernia is formed also by the movements of the intestine, but chiefly by the passive movements caused from pressure of the abdominal muscles or diaphragm. The hernia may be single or double.

If, from a sudden violent exertion, a loop of intestine is forced through a very narrow opening, or if an excessive amount of intestine or too much intestinal contents be forced into a previously formed hernia, the afferent and efferent portions of the intestine passing through the neck of the hernia sac become obstructed. The compression of the veins of the involved mesentery, which is dragged into the sac with the loop of intestine, soon causes edema and increases the contents of the sac until circulation may become completely blocked; producing a hemorrhagic infarction. As the incarcerated portion of the intestine becomes more or less isolated in a tight-fitting sac, melena may or may not be present, depending on the degrees of strangulation.

In infants, the umbilical hernia, and in older children the indirect inguinal and femoral hernias, respectively, are the most common of the external types. The internal hernias are comparatively infrequent in children.

3. **Volvulus.** Acute intestinal obstruction produced by twisting or rotation of an intestinal loop through an arc of 180 degrees, or more, forms an interesting though relatively rare condition as compared to the frequency of intussusception. McIver[14] did not find a single case of volvulus during the first year of life in his series of 335 cases of acute intestinal obstruction.

A volvulus is usually single, but unless the condition is relieved there is a marked tendency for recurrence. Either the large or small intestine may be obstructed in this manner, but the most common sites are in the cecum or sigmoid colon. The causes of volvulus are obscure, but are thought to be due to abnormalities in rotation of the fetal gut, to lack of mesenteric or colonic attachment, or to bands and adhesions. An adherent Meckel's diverticulum may serve as a pivot around which a portion of the intestine rotates. In such instances there is the added probability of a hyperactive intestine.

When a section of intestine undergoes rotation around its mesenteric axis, or in some instances around its own axis, an isolated loop is formed with obstruction to its lumen at both ends. The degree of interference with the mesenteris circulation varies from a slight congestion to complete venous blockage, depending on the degree of torsion. Frequently, however, the blockage is severe and in these cases the isolated loop of intestine becomes the seat of a hemorrhagic infarct. Again, melena may or may not be present depending on the degree of venous obstruction.

In the adhesive type of obstruction the constricting veils or bands may be of congenital, inflammatory or traumatic origin; and less frequently, at this age period, of neoplastic origin. As a rule, the obstruction produced is angular kinking of the intestine, though it might be a simple constriction like that produced by a ligature, or it might resemble the acute obstruction occurring from a strangulated internal hernia.

SUMMARY

This is an abstracted review of the literature concerning the physiologic-pathological aspects of acute intestinal obstruction in infancy and childhood; nothing new has been added to the literature in this paper.

BIBLIOGRAPHY

1. MacCallum: Textbook of Pathology, 7th Ed., W. Saunders Company, Philadelphia, 1940.
2. McGehee, J. Lucius: The Mississippi Doctor, Feb., pp. 15-22, 1938.
3. Bartlett, Willard, Jr.: Surgery, Gynecology and Obstetrics, November, 1933.
4. Cannon, W. B., and Murphy, F. T.: J.A.M.A., 840, XLVIII.
5. Whipple, G. H., Stone, H. B., and Bernheim, B.M.: J. Exper. Med., 17: 307-323, 1913, and other papers.
6. Whipple, G. H., and Cooke, J. V.: J. Exper. Med., 25: 461-477, 1917, and other papers.
8. Gatch, W. D., Trusler, H. M., and Ayres, N. D.: Amer. J. Med. Sciences, CLXXIII, 649, 1927.
9. Burgess, J. P., Walsh, E.L. and Ivy, A. C.: Proc. Soc. Exper., Biol. and Med., XXV, 105, 1927.
10. Moss and McFetridge: Arch. Surg., 100, 158, 1934.
11. Wangensteen, Owen, H.: J.A.M.A., 101, 1532-1538, November 11, 1933.
12. Bolling, R. W.: Ann. Surg., 349, 1923.
13. Vick, R. M.: Brit. M. J., 2: 546-548, 1932.
14. McIver, M. A.: Arch. Surg., 25: 1098, 1932, and other papers.
15. Moore, Robert A.: Textbook of Pathology, 1st. Ed., W. B. Saunders Company, Philadelphia, 1944.

On his bold visage middle age
Had slightly press'd its signet sage
Yet had not quench'd the open truth
and fiery vehemence of youth:
Forward and frolic glee was there,
The will to do, the soul to dare.
—Scott

Varicose Veins

JOHN D. DYER
Houston, Miss.

We all can look back to only a few years ago when the approach to the management of varicose veins was entirely different from what it is today. The treatment has changed from one of drastic to one of simple surgical procedures.

The anatomical arrangement of veins is such that certain patterns are usually found. However, the veins vary so much in their course and in their termination that a variation from the so-called normal can not be called abnormal. The veins which return blood from the lower extremity may be divided into five groups: 1) deep veins of the leg, 2) superficial veins of the leg emptying into the femoral (internal saphenous system), 3) superficial veins of the leg emptying into the popliteal (external saphenous system), 4) superficial and deep veins of the leg emptying in the internal iliac vein, and 5) communicating veins.

Some of these veins have valves which project into the lumen of the vein. These valves lose their function in varicose veins for they normally allow the blood to flow only upwards.

There is much more known about the pathology of varicose veins than about the pathogenesis. Grossly, the varicose vein is elongated and tortuous. It has lost its elasticity and is widely dilated. The collaterals are enlarged.

The exact cause of varicose veins is not known. It is likely that a number of factors are responsible. Some of these are familial tendency, pressure on veins, pregnancy, endocrine factor, inflammation, and occupation.

Diagnosis is not difficult as it is usually made by the patient. However, every cause of varicose veins should be investigated by special tests to determine the following points:

1. Competency of the valves in the internal saphenous system.
2. Competency of the valves in the communicating veins.
3. Patency of the communicating veins.
4. Patency of the deep veins.
5. Relative impairment of the arterial supply to the extremity.

The following tests determine these points:

Brodie-Trendelenburg Test. This test determines the function of the valves of the internal saphenous. With the patient in the reclining position, the extremity is elevated above the level of the heart. After the veins are emptied, the hand is placed over the upper end of the internal saphenous vein and the patient is told to stand up. Pressure is maintained momentarily and the hand is then released. If the veins fill immediately, it indicates that the valves are incompetent and thus the test is positive. A variation of this test is to maintain the pressure of the hand when the patient stands up. If the varicosities distend in less than thirty-five seconds, it is an indication that the valves of the communicating veins are incompetent. If it requires more than thirty-five seconds for the varicosities to distend, the interpretation is that the valves of the communicating veins are competent, because these veins will normally distend through the capillary bed in approximately thirty-five seconds.

Parthes' Test. This test is performed by applying a tourniquet around the upper thigh tightly enough to compress the internal saphenous vein and prevent the flow of blood in the superficial system past this constriction. When the patient walks, the varicosities improve if the communicating veins and deep veins are patent.

Comparative tourniquet test. This test was devised by Dr. Howard Mahorner of Tulane University. It combines the preceding tests. It demonstrates the condition of the deep veins and whether the valves of the communicating veins are competent. If the valves of the communicating veins are incompetent, it shows at what level the leaks occur. The patient is first observed standing to find out the extent of the varicosities. He is then told to walk to and fro in front of the observer. He is then stopped and a tourniquet is placed around the upper third of the thigh just tightly enough to compress the superficial veins. Walking is then continued over the same course at the same speed. The prominence of the varicosities is noted and compared with their prominence when the patient walked without the tourniquet. Next a comparison is made with the tourniquet around the middle third and finally with the tourniquet around the lower third of the thigh. Thus, the varicosities have been observed under five circumstances: standing, walking without a tourniquet, walking with a tourniquet around the upper third of the thigh, walking with the tourniquet around the middle third and walking with the tourniquet around the lower third. The interpretation is as follows: If the maximum improvement occurs when the tourniquet is around the upper third, and there is not further improvement when it is placed at lower levels, the retrograde flow is through the main opening of the internal saphenous vein. In cases where there is greater improvement in the varicosities when the tourniquet is around the lower third than when it is around the upper third, the interpretation is that the valves of the communicating veins are incompetent.

---

*Read before the Northeast Mississippi Thirteen Counties Medical Society, Tupelo, December 11, 1945.

The final test as to whether the enlarged veins are varicosed or compensatory is the bandage test. A four-inch ace bandage is applied about the leg from the ankle to the knee. The patient is told to walk very fast for fifteen to thirty minutes. If pain develops in the lower leg and it increases, it is an indication that the deep veins of the leg are not patent and that the enlarged veins are compensatory. On the other hand, if the enlarged veins are typical varicose veins, the leg will feel better after walking.

It is very dangerous to operate on a patient for varicose veins without having determined the five points mentioned above. Certainly, if the deep veins are occluded it would be unwise to destroy the only veins left to return the blood from the leg. If this should be done, the leg would probably be lost and possibly the patient.

The choice of treatment in most cases is high saphenofemoral ligation with retrograde injection. The operation is done under local anesthesia and should be practically free from pain. Dissection must be clean and the operative field should be kept bloodless. The internal saphenous vein should be freed all the way into the foramen to where it empties into the femoral vein. The operator should be able to see the femoral vein above and below the ligation is done flush with the wall of the femoral vein. However, the proximal stump of the saphenous is left about one inch in length so that there will be no danger of the ligatures slipping off. There are many different types of solution which may be used for the retrograde injection. We first started using three or four cc. sodium morrhuate. However, it was found that thrombosis was spotty. We have had much better results since we started using varisol in large doses. Usually about 40 cc. of varisol is injected by means of a ureteral catheter. The patient is told to walk at least ten minutes out of each hour for the remainder of the day until bedtime. After the first day he is allowed to be up on his feet most of the time. Checkups are made every two weeks so that any remaining varicosities may be injected. After all varicosities are corrected, the checkups should be made once or twice each year. By doing this any recurrence would be found early and could be corrected before it progressed very far.

If you wish to be happy for an hour,
get intoxicated.

If you wish to be happy for three days,
get married.

If you wish to be happy for eight days,
kill your pig and eat it.

But if you wish to be happy forever,
become a gardner.

—Chinese Proverb

Endometriosis

A CASE REPORT

W. L. STALLWORTH, M.D.
Columbus, Miss.

A CASE OF endometriosis is presented here, which due to the age of the patient, the extensiveness of the spread of the endometrial transplants and the method of handling the case, might prove an interesting discussion.

A twenty-three-year-old woman appeared in the out-patient department of a Navy clinic complaining of a mass in the right inguinal region. She had been delivered of a normal male child six months previously, and had noted this gradually enlarging mass in the groin for about three months. She complained that this tumor became swollen and painful during the menses, which began six weeks after delivery.

Physical examination was essentially negative except for the tumor noted in the right inguinal region. Pelvic examination at this time showed nothing abnormal except for a moderate erosion of the cervix.

She was advised to have the inguinal tumor excised which was done under local anesthesia. The tumor was found to be a spindle shaped enlargement of the round ligament measuring 8x4 cms. well encapsulated. The pathological report was endometriosis of the round ligament.

She was not seen again at the clinic for a period of two months. Her home was in a smaller town nearby and she was sent into the hospital by a civilian doctor with a diagnosis of a ruptured ectopic pregnancy.

The previous month she had also experienced severe low abdominal cramps, with some urinary discomfort, necessitating the giving of opiates.

At this time of admission to the hospital it was evident that she had lost considerable blood, and seemed to be in a critical condition due to an acute abdominal condition. Immediately 500 cc. of citrated blood were administered and repeated the following day. Abdominal examination revealed some splinting of the abdominal muscles, and acute tenderness over the whole of the lower abdomen.

Pelvic examination revealed both ovaries cystic with nodular masses present bilaterally. Numerous small nodular masses were felt in the posterior cul-de-sac on rectal examination. Due to the findings on the previous admission the diagnosis of extensive pelvic endometriosis was agreed upon.

Accordingly the day after admission a laparotomy was performed under general anesthesia. Numerous adhesions between the pelvic viscera were encountered. The ovaries were cystic, and appeared to contain the typical chocolate colored blood. There was also considerable free blood in the peritoneal cavity. The whole of the pelvic organs was studded with numerous small endometrial transplants which made it immediately evident that their entire removal was hopeless. No attempt was made to break up the numerous adhesions present.

It was agreed upon that the best solution of the problem, even though the patient was only twenty-three years of age, lay in arresting ovarian function. Accordingly after recovery from the operation she was referred to a competent radiologist for deep x-ray radiation of the ovaries. The decision brought on some rather sharp criticism from several sources but two prominent gynecologists, who were present in the surgery and were called in, agreed that less mutilation would be done by the procedure we followed. Unfortunately I have not been able to study this case further, due to the fact that shortly after her discharge from the hospital she followed her husband to the Pacific Coast and has not responded to any correspondence.

Endometriosis occurs most frequently in white women in their early thirties who have been sterile for several years. The case reported is an exception in that this extensive process occurred in a young woman who had delivered a normal child six months previously. No pelvic surgery had been done to account for the widely disseminated lesions that could have resulted from a spilling of endometrial tissue into the peritoneal space. Regurgitated endometrium through the fallopian tubes, activated by a high estrogenic blood level, seems the most plausible explanation.

BIBLIOGRAPHY

1. Sampson, J. A., Arch. Surg., 1921, 3: 245-323.
2. Idem. Am. J. Path., 1927, 3: 93-109.
3. Idem. Am. J. Obst., 1922, 4: 451-512.
4. Wolford, T. F., The Miss. Doctor, 1943, pp. 492-494.
5. O'Conner, Greenhill, The American Journal of Obstetrics-Gynecology.
6. Richard R. Stephenson, M.A., and Peter Grafagnino, M.D., Southern Medical Journal, May 1942, Vol. 35, Page 525.
7. Richard B. Cattell, M.D., and Neill W. Swinton, M.D., The New England Journal of Medicine, Vol, 214, Pages 342-346.
8. Curtis H. Tyron, M.D., Reprinted from the Southern Surgeon, October, 1935, Vol. 4, Pages 345-352.
9. Emil Novak, M.D., F.A.C.S., New Series, The American Journal of Surgery, Sept., 1936, Vol. 33, Pages 422-427 and 421.
10. Floyd E. Keene, M.D., and Robert A. Kimbrough, Jr., M.D., Southern Medical Journal, February 1929, Vol. 22, Page 101.
11. G. C. Milner, M.D., and I. L. Telden, M.D., American Journal of Obstetrics and Gynecology. August, 1942, Vol. 44, Page 322.

THE BATTLE AGAINST CANCER

—An Editorial by Morris Fishbein

Among the most conspicuous problems in the control of cancer is the difficulty of getting the patient to seek medical care soon enough to permit medicine to do for him all that can be done. In many instances patients frequently delay because of ignorance or fear in seeking medical care. In some instances, of course, doctors fail to carry out enough scientifiic study to detect the presence of cancer that is not easily detectable. This means that more and more education is needed in regard to the importance of early recognition and treatment of cancer. If people would only try to call attention to suggestive symptoms as soon as they are noticed and if there were availlable everywhere opportunities for immediate consultation with physicians who had access to the necessary aids for diagnosis, the number of needless deaths from cancer would be greatly decreased.

In Great Britain, under the British Cancer Act of 1939, the country is divided into regions in which there are available diagnostic units, treatment centers and facilities for the care of advanced cases. A similar program is now in process of development for the United States with the aid of funds to be provided by the American Cancer Society. Both the American Medical Association and the American College of Surgeons are coöperating in the development of principles and practices which should make this plan effective.

Regardless, however, of the facilities and the medical advice that are available, these can do little to reduce the total number of unnecessary deaths unless people learn to overcome their fears and to seek the aid of these facilities at the earliest possible moment. In Sweden under a government system there are available to the people free diagnostic services and free transportation to government clinics with easy access to surgery and radium. Nevertheless, these facilities do not seem to have reduced materially either the deaths from cancer or the death rates. In a personal inquiry made to the physician in charge of one of the great cancer centers—the Radium Hemmet in Stockholm—he said that the public still fears cancer so greatly as to postpone the visit to the general practitioner in rural areas, who is in the vast majority of cases the first physician consulted.

In the United States cancer of the breast caused 16,140 deaths in 1943; cancer of the uterus caused 16,968 deaths; cancer of the larynx caused 1,490 deaths; cancer of the tongue, 1,231 deaths; and cancer of the lips, 661 deaths. With the knowledge now available many of these deaths could have been prevented. These forms of cancer are in the majority of instances curable in their early stages. The figures cited indicate great possibilities if educational and medical ficilities can be utilized to the utmost in getting the patient to the doctor as soon as possible and making available to the doctor modern methods for diagnosis and treatment.

The Mississippi Doctor

Published monthly at Booneville, Mississippi. Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D. .... Editor-in-Chief
MILDRED P. ANDERSON .... Assistant Editor

David E. Guyton, Blue Mountain College...... Poet

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.

A. F. Cooper, M. D. .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

E. M. Holder, M. D. C. R. Crutchfield, M. D.
F. M. Acree, M. D. H. King Wade, M. D.

Lawrence W. Long, M.D.
J G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississiippi.

ANSWERS LAST SUMMONS

DR. W. S. LEATHERS

The doctors of Mississippi are deeply grieved over the death of Dr. W. S. Leathers, dean of Vanderbilt Medical School. As dean of our two-year medical school and as executive secretary of our state board of health, he rendered great and valuable service to Mississippi for many years. In public health and as a medical dean he was well-known throughout the nation. As a teacher in the medical school at Ole Miss he was one of the best we have ever known. He taught well because he knew his subject very definitely and he was painstaking and reasonable with his students.

Dr. W. S. Leathers was a courtly, Christian, Southern gentleman of the very finest type. Duty was his watchword. He loved to train young men to be thorough and to serve well. His love for Mississippi never wavered. He was anxious to see our state have a four-year medical school and many of our thinking doctors who loved him hoped to have him as dean of our school when established.

In the death of Dr. Leathers Mississippi lost a friend whom it loved affectionately, the Southern states lost a noble son, and the nation lost a great scientist and an outstanding leader in public health and medical education.

§

DR. EDWIN H. CAREY

Doctor E. H. Carey of Dallas, Texas, was recently presented the Linz Award for outstanding community service in 1945. Dr. Carey is an enthusiastic civic-minded citizen. His outstanding work for Dallas has been as president of the board of trustees of Southwestern Medical Foundation. For twenty-five years or more Dr. Carey has dreamed of and worked for this great medical center which is now a reality. This center is outstanding in the Southwest.

Dr. Ed Carey, as he is fondly known by most people, is a native of Alabama. He was born February 28, 1872, in Union Springs. He is a graduate of Bellevue Hospital Medical College, and during an outstanding career has served as president of both the American and the Southern Medical Associations. He is a great student in medical economics and is deeply interested in the social uplift of all the people. In medical policy he is the best informed and safest leader we think of to be found in this nation. We would do well to listen to his council and follow his leadership around the pernicious threat of state medicine. The medical profession of the nation is proud of Dr. E. H. Carey as an outstanding man in his profession, and an enthusiastic civic leader, as a medical statesman, and a positive, warm-hearted, inspiring personality.

§

At the joint meeting of the Northeast Mississippi Thirteen Counties Medical Society and the North Mississippi Society at Oxford on Tuesday, March 12, the matter of consolidation of the two societies into the North-Northeast Mississippi Medical Society will be considered. The Northeast has already expressed itself as being glad to join hands with the North Mississippi. Since our doctors are cut down so much in number and since our means of travel are improving it seems that there might be many advantages in the consolidation.

§

The Southeastern Surgical Congress holds its first session since the war in Memphis, March 11-13. Dr. Alton Ochsner of New Orleans, head of the Ochsner Foundation, is president. The Ochsner foundation is rapidly developing into one of the South's greatest medical centers. The Southeastern Surgical Congress is one of our very best scientific organizations within the medical profession. We are sure that the attendance will be as large as the hotel accomodations in the Bluff City will permit.

§

Dr. G. S. Bryan of Amory, beloved by all, is asking every doctor to send him a picture of himself and a brief history of his life and work. Such a collection will be very valuable in the years to come, and it will give Dr. Bryan a lot of pleasure now since he has retired from active practice.

§

HOSPITAL SERVICE

February 20, for Mississippi medicine, was a very important day in our state legislature. The four-year medical school was set for special order. Practically all members acknowledged that Mississippi needs more and better medical service. But there are three definite schools of thought on how to secure it. One insists on more and bigger hospitals as the only way to better medical service. Another insists on the four-year medical school as the chief essential, and still another sees the need of the four-year school with an affiliated hospital system to support it. This last group envisions an extension consultation service from the four-year school and the central hospital by way of the smaller hospitals of the state, carrying a better medical service right to the people. It also favors nurses securing half or more of their training in the smaller hospitals and then finishing in the university hospital or the larger ones affiliated with it, and interns serving from three to six months in the smaller hospitals as part of their training.

The house was called to order at two o'clock and the fray was on. Former Governor Hugh White led the fight for the four-year medical school, and did it in a masterly manner. A motion was soon made to defer action for one week — then the tug of war was on. Different opinions for and against the school were discussed pro and con. As the debates continued the thinking elements on either side began to come closer together on the view that the school and the hospital system should go hand in hand if the people of the state are to have beeter medical service.

Representative Littleton Upshur was a coleader with Mr. White for the bill. His plea for a four-year medical school with an affiliated hospital system was logical and convincing and very eloquent with facts and reason.

The opposition to the four-year school asked that the matter bedeferred for a week. The battle raged for about two hours, the vote was taken and history was recorded. The vote was sixty-nine to sixty-five in favor of the school. The crowded galleries, most of whom were decidedly in favor of the complete service, the school and the hospital system, sat tense while the vote was registered.

After the vote an amendment was added providing that the hospital system be completed before the school is inaugurated. This should not have been added perhaps, but the victors were big-hearted and wanted to be nice to the minority. After all it was a brotherly get-together move, each side showing faith in the integrity of the other.

The able, unbiased, thinking members of the legislature are coming steadily to the view that the school and the hospital system must go together and that it will take some time to give us the perfected service, but that we must start now with the school and with enough of the hospital system to carry it along. The indications are that the senate will favor the completed service, the school and the affiliated hospital system for every county according to its needs and according to what it can utilize at this time. This is the just and the reasonable conclusion.

In medical service to all the people we venture to predict that Mississippi is going to show the way to the nation.

§

FROM DR. BRYAN

Call him not dead whose good works and wholesome influence still live. Thus I reasoned when the press announced that Doctor W. S. Leathers was dead. Doctor Leathers was born of Virginia. He taught, for a time after his lottesville in that old state. He was educated in and graduated from the classic University of Virginia. He aught, for a time after his graduation, in the University of South Carolina. He then joined himself to the faculty of the University of Mississippi. He organized, inaugurated, and directed the medical department there for many years. It is largely due to his vision and wisdom that this institution has taken such high rank among the two-year medical schools of the nation.

In addition to the delicate and arduous duties devolving upon him as dean of medicine and teacher in this school, he was induced to take over the direction of the program of public health being inaugurated by Mississippi's Board of Health. This was, I think, in 1914. At any rate, it was during my incumbency as president of the Mississippi State Board of Health. Thus it was that I had opportunity to observe the man and his methods. The results of his wisdom and genius can still be seen in the splendid work that is now being done by this board of health. I became acquainted with Doctor Leathers in the early 1900's. During those days he made frequent visits to my office. Recognizing him as a highly cultured Southern gentleman, I soon learned to love him as a friend.

In 1924 he left Mississippi, to go to Nashville where he became professor of preventive medicine at Vanderbilt. In 1928 he became dean of medicine in that great institution which place he held until June 1945 when he became dean emeritus. On January 4, 1946, he suffered a paralytic stroke from the effects of which he succumbed on January 26, 1946. I saw him seldom after he went to Nashville but our friendly relations did not suffer in consequence of this separation. I wish to pay tender but sincere tribute to him and this memory of that occasion. In the spring of 1944 I went as fraternal delegate to the Tennessee Medical Association. On my arrival in the city, I went immediately to the auditorium where the association was in session. When I entered, Doctor Leathers was discussing some paper or issue that had been presented. At the close of his discussion he came and seated himself by my side. From then on during my stay we were scarcely separated. Due to his graciousness, I was included among the élite of the association in a special entertainment, given jointly, by Dr. O. N. Bryan (who was, at the time, president of the association) and Dr. Shoulders (who is now president of the A. M. A.). The first session of this entertainment was a stand-up affair in the spacious home of Dr. Bryan. The closing session was a magnificent banquet given at Belmeade—the beautiful, the romantic, the historic old Belmeade.

Doctor Leathers was loyal to friends and to principles. And after all, loyalty is the test of character. My tears and my homage are freely offered. A good and great man has lived and labored among us and has passed from the stage. We may not soon see his like again.

G. S. B.

§

As a rule if you wish to secure the best nurse available, find one trained in a twenty-five to one-hundred-bed hospital.

§

Federal aid for the lower income bracket for hospitalization and for medical and surgical fees is much better than to have fastened upon us the Wagner bill in all of its damaging ramifications. Personal effort should continue to be inspired by meritorious service and the patient-doctor relation should be guarded as human life.

§

We have committed the Golden Rule to memory; let us now commit it to life.

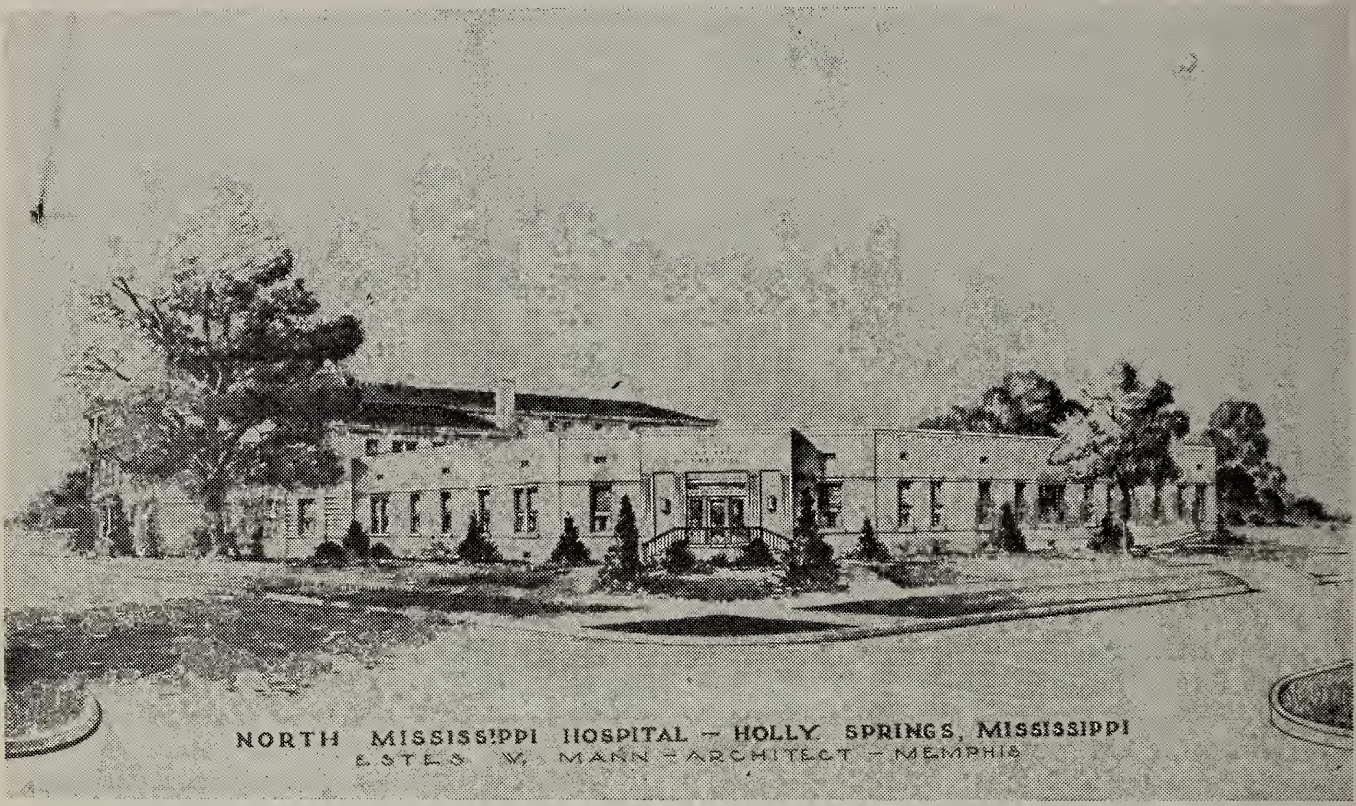
We have preached Brotherhood for centuries; we now need to find a material basis for brotherhood. Government must be made the organ of Fraternity—a working-form for comrade-love.

Think on this—work on this.

—Edwin Markham

News and Comment

NORTH MISSISSIPPI HOSPITAL DEDICATED


NORTH MISSISSIPPI HOSPITAL — HOLLY SPRINGS, MISSISSIPPI
ESTES W. MANN — ARCHITECT — MEMPHIS

Dedication of the North Mississippi Hospital February 15, was an outstanding event in north Mississippi and the result of a long effort in the legislature for a hospital unit north of Jackson.

The idea was born in the mind of the late Dr. A. M. McAuley, prominent physician of Marshall County, who in 1927 asked Fred Belk, then a member of the legislature, to start a fight for a small hospital. Each session since that time has tried for funds for the hospital.

College Plant Purchased

In 1944 the Marshall County legislators, composed of Dee Howard, Robert Reed, Bob Bonds and Deaton McAuley, son of the late Dr. McAuley, and the legislators from Tate and DeSoto counties, with the coöperation of legislators from central and south Mississippi, were able to get an appropriation of $50,000.

Marshall County purchased the Mississippi Synodical College and grounds that cover a city block and offered it to the three counties for a hospital. The building of the hospital was under the direction of a board of trustees: H. A. Harris, chairman, Marshall County; C. S. Baker, Tate County; W. P. Winn, DeSoto County, and Fred Belk, secretary and attorney of the board.

The framework of the college was torn down and on the site was built a splendidly equipped hospital with thirty beds. This connects with the brick structure of the M. S. College in which it is hoped to add another unit. The twenty beds in this unit are being used for the nurses.

Dr. V. B. Philpot is surgeon in charge; Miss Martha McVey, executive secretary; Miss Margaret Gooch, bookkeeper, and the following nurses and nurses aides: Mrs. Helen Cox, Mrs. Sue Hardy, Miss Mary Fields, Miss Jane Graham, Miss Jean Eaves, Mrs. June Dixon, Miss Patricia Griswold, Mrs. A. N. Barnett and Mrs. Elmo Churchill.

The negro unit has Mae Florence Owen, Rosie Lee Freeman and Rebecca Smith as nurses.

The hospital was dedicated in a ceremony at 7 p.m. Dr. Harry Leland Martin of Senatobia was the speaker, Hindman Doxey, master of ceremonies; the Rev. Dewitt Smith read the Scripture and the Rev. C. T. Floyd gave the dedicatory prayer.

The history of the hospital was given by Frank Belk, attorney. The addresses for the evening were by Dr. Felix Underwood, State Board of Health, and Perrin Lowrey. Dr. Philpot, surgeon in charge, was introduced and expressed his appreciation. The master of ceremonies, Hindman Doxey, also introduced many distinguished Mississippians who attended.

This is one of the most modern hospitals in the state, well built and well equipped in every way. It is well staffed with good nurses and other help.

The official staff of the hospital follows:

President, Dr. Ira Seale, Holly Springs; vice president, Dr. C. W. Emerson, Hernando; secretary, Dr. V. B. Philpot, surgeon in charge.

Meetings of the staff will be held on the second Tuesday of each month.

All medical doctors of Marshall, Tate and DeSoto counties are members of the staff. They are listed by counties as follows:

DeSoto County: Dr. C. W. Emerson, Dr. D. C. Funderburk, Dr. L. L. Minor, Dr. A. U. Richmond, Dr. H. A Stewart, Dr. J. M. Wright.

Tate County: Dr. H. F. Byers, Dr. J. J. McAuley, Dr. A. D. Powers, Dr. J. C. Powell, Dr. M. M. Powell, Dr. W. C. Smith, Dr. L. L. Welborn and Dr. H. H. Rutledge.

Marshall County: Dr. C. C. Conner, Dr. Norman Gholson, Dr. R. G. Grant, Dr. D. R. Moore, Dr. H. S. Phillips, Dr. Ira Seale, Dr. C. R. Senter, Dr. Edward Thorne, Dr. F. K. West and County Health Officer Dr. Jack Young.

PHYSICIANS RETURNED FROM MILITARY SERVICE

Dr. A. A. Derrick, Natchez, Mississippi
Dr. Eldon L. Bolton, Biloxi
Dr. D. M. Pennabaker, New Albany
Dr. T. R. Ramsey, Laurel
Dr. J. D. Hutchins, New Hebron
Dr. James A. Clark, Jr., Parchman
Dr. L. M. Lipscomb, Jackson
Dr. L. L. McDougal, Jr., Booneville
Dr. James G. Blaine, Hazelhurst
Dr. George B. Neukom, Doddsville
Dr. E. H. Crawford, Tylertown
Dr. B. R. Wilson, Carthage
Dr. W. E. Johnston, Vicksburg
Dr. Ralph Sneed, Clarksdale
Dr. W. H. Lunceford, Sardis
Dr. W. F. Hand, Jackson
Dr. Thomas L. Moore, Jr., McComb
Dr. W. P. Warfield, Clarksdale
Dr. Ellis D. Parker, Laurel
Dr. W. R. Armstrong, Iuka
Dr. G. C. Verner, Jaikson
Dr. W. H. Cave, Greenville
Dr. B. F. Hand, Greenville
Dr. A. E. Brown, Columbus
Dr. J. R. Lavender, Columbus
Dr. H. H. McClanahan, Columbus
Dr. G. G. Townsend, Morton
Dr. R. A. Strong, Pass Christian
Dr. G. K. Rogers, Belzoni
Dr. L. B. Merriam, Waynesboro
Dr. G. Y. Hicks, Vicksburg
Dr. W. J. Witt, Jackson.

SUMMARY OF PRINCIPLES EVOLVED IN DISCUSSION OF NOVEMBER 30, 1945

The special committee of the conference reviewed the proceedings and crystallized suggestions, which were based on the suggestions offered at conference: that the Council on Medical Service and Public Relations obtain from the House of Delegates authorization to develop a national voluntary prepaid medical plan along the following guiding principles:

1. The plan should be a (non-profit) stock corporation.

2. It should be chartered in one of the states and licensed to do business in all the others.

3. It should be under medical control.

4. Its original financing should be from medical sources, by contributions—loans without interest—from state medical societies and from local and state voluntary prepaid medical plans to be matched by grants from the American Medical Association.

5. The coverage at first should be surgical and obstetrical care on an indemnity basis.

6. It should be conveniently integrated with plans for hospital care.

7. The purposes should be a) to provide coverage in areas where no plans exist until such time as they can be developed; b) to encourage the development of voluntary prepaid medical plans where they are lacking; c) to supplement local and state plans in providing coverage for national enrollment

groups; d) to encourage local and state plans to provide an appropriate coverage for the lower income group and for those whose costs of medical care are borne by taxation; e) to encourage local and state plans to extend coverage as rapidly as is consistent with sound practice to include medical as well as surgical and obstetric care.

Terminating two years as director of the Department of Public Relations and secretary to the Council on Public Relations of the American Hospital Association, Jon M. Jonkel announced his resignation effective January 5 to establish an organization specializing in the public relations problems confronting hospitals.

A broad public education program is extremely important at the national level, according to Mr. Jonkel, but individual hospitals too must engage in continuous programs that will improve and maintain the quality of public opinion about hospitals. The contemplated public relations program of the Association will call attention to hospitals' contributions to the national welfare but each hospital must adjust its public relationships and should explain itself to the public that supports it if continued support is expected.

Mr. Jonkel will offer assistance in the public relations programs of individual hospitals and will serve as a public relations consultant in fund raising campaigns. His services will include public opinion surveys, an audit of the hospital's work that has a bearing upon public opinion, preparation of year-long public education and employee programs, and the development of the materials that will implement any recommended program.

DIRECTORY OF APPROVED SURGICAL TRAINING PLANS PUBLISHED BY AMERICAN COLLEGE OF PHYSICIANS

Chiefly as an aid to medical officers returning from war duty, the American College of Surgeons has published a 424-page directory in which are listed and described the approved programs of graduate training in surgery in 240 civilian hospitals in the United States and Canada, and in 32 Naval, 7 Veterans Administration, and 10 United States Public Health Service hospitals.

The total number of approved training plans in the 269 hospitals is 228 in general surgery and 522 in the surgical specialties—fractures, plastic surgery, proctology, thoracic surgery, neurological surgery, orthopedic surgery, urology, obstetrics and gynecology (combined and separately), and ophthalmology and otolaryngology (combined and separately). In these 750 training plans in 289 hospitals, approximately 2,000 surgeons may be trained, whereas, as the College points out, training facilities for at least 5,000 are urgently needed for returning medical veterans whose training in surgery was interrupted by their military service. Publication of the directory is expected to stimulate the formation of additional programs of training in suitable hospitals, according to Dr. Irvin Abell, chairman of the Board of Regents.

§

THE STATE MEETING

Before we know it, our state meeting will be on hand. Let us make ready rapidly. The meeting will be held at Jackson at the Robert E. Lee Hotel, May 14, 15, and 16, if we have the regular three-day session. We should have a fine meeting this year. It will be a good time to review what the war taught us and to plan for better medical service for our people. Many familiar faces will be missed at our next meeting. Just the delegates were present last year, and within the last two years some of our finest leaders in the profession have passed on. Deaths during the war have far exceeded the replacements by men returning from the service.

Two years ago he Half Century Club was organized, men who had practiced fifty years being qualified. We are extending an invitation again to the men who have practiced for fity years to be our guests at a luncheon. We hope that every one in the state will be present if a all possible. The knowledge and he wisdom of these men are very valuable.

The past-presidents' meeting is always a fine feaure at the state association. And the public night which was instituted a few years ago, will help o bring about an understanding between the profession and the laity. We hope now that the war is over this night will also be resumed.

The various section chairmen are busy working on the program. Make your plans to attend.

The Woman's Auxiliary will resume its state meeting simultaneously with the scientific session. Mrs. L. J. Clarke, Vicksburg, is president.

OFFICERS 1945-46

PRESIDENT

B. Lampton Crawford........................*Tylertown*

PRESIDENT-ELECT

J. K. Avent ....*Grenada*

VICE-PRESIDENTS

E. K. Guinn ....*Okolona*
J. T. Weeks ....*Jackson*
L. W. Brock ....*McComb*

HISTORIAN

J. G. Thompson......................................*Jackson*

EDITOR

Lawrence W. Long ....*Jackson*

ASSOCIATE EDITORS

Stanley A. Hill (*One Year*) ....*Corinth*
L. Hughes (*Two Years*) ....*Jackson*

SPEAKER OF THE HOUSE

J. Rice Williams ....*Houston*

TREASURER

J. F. Lucas ....*Greenwood*

SECRETARY

T. M. Dye ....*Clarksdale*

COUNCIL

First District

J. W. Lucas ....*Moorhead*
Bolivar, Coahoma, Humphreys, LeFlore, Quitman, Sunflower, Tallahatchie, Tunica, Washington

Second District

L. L. Minor ....*Route 4, Memphis, Tenn.*
Benton, DeSoto, Lafayette, Marshall, Panola, Tate, Tippah, Union, Yalobusha

Third District

R. B. Caldwell ....*Baldwyn*
Alcorn, Calhoun, Chickasaw, Clay, Itawamba, Lee, Lowndes, Monroe, Noxubee, Oktibbeha Pontotoc, Prentiss, Tishomingo

Fourth District

W. H. Curry ....*Eupora*
Attala, Carroll, Choctaw, Grenada, Holmes Montgomery, Webster

Fifth District

H. C. Ricks ....*Jackson*
Claiborne, Hinds, Issaquena, Leake, Madison, Rankin, Scott, Sharkey, Simpson, Smith, Warren, Yazoo

Sixth District

Lamar Arrington ....*Meridian*
Clark, Kemper, Lauderdale, Newton, Neshoba, Winston

Seventh District

R. F. Ratliff ....*Lucedale*
Covington, Forrest, George, Green, Jasper, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Wayne

Eighth District

W. H. Frizell ....*Brookhaven*
Adams, Amite, Copiah, Franklin, Jefferson, Lawrence, Lincoln, Pike Walthall, Wilkinson

Ninth District

D. J. Williams ....*Gulfport*
Hancock, Harrison, Jackson, Stone

COMMITTEES

PUBLIC POLICY AND LEGISLATION

A. Street, (*One Year*) ....*Vicksburg*
Henry Boswell (*Two Years*) ....*Sanatorium*
W. H. Anderson (*Three Years*)......*Booneville*

PUBLICATION

L. W. Long, *Editor* ....*Jackson*
Stanley A. Hill (*One Year*)................*Corinth*
L. Hughes (*Two Years*).........................*Jackson*

PROGRAM

THE SECRETARY
CHAIRMEN OF SECTIONS

CONSTITUTION AND BY-LAWS

D. W. Jones (*One Year*) ....*Jackson*
W. W. Crawford (*Two Years*)......*Hattiesburg*
W.H. Frizell (*Three Years*) ....*Jackson*

BUDGET AND FINANCE

Gilruth Darrington (*One Year*)....*Yazoo City*
George Adkins (*Two Years*)...................*Jackson*
B. B. O'Mara (*Three Years*).....................*Biloxi*

EXHIBITS

D. W. Jones (*One Year*) ....*Jackson*
J. G. Thompson (*Two Years*) ....*Jackson*
George Riley (*Three Years*) ....*Jackson*

CHAIRMEN OF SECTIONS

MEDICINE

H. C. Sheffield ....*Jackson*

SURGERY

A. B. Harvey ....*Tylertown*

PUBLIC HEALTH

T. Paul Haney ....*Laurel*

EYE, EAR, NOSE AND THROAT

S. B. Caruthers ....*Grenada*

TO HAVE VETERANS HOSPITAL

The progressive city of Tupelo looks forward in hospital facilities. The news comes that $200,000 will be added to their already very fine local hospital which cost more than $300,000. In addition to the big addition to the local hospital, this progressive city is assured of a 250-bed veterans hospital. These additions are calculated to make Tupelo a hospital center.

NEWTON COUNTY MEDICAL SOCIETY ELECTS

The following officers for 1946 have been elected by the Newton County Society:

Dr. E. L. Laird, Union, president; Dr. Omar Simmons, Newton, vice-president; Dr. Dudley Stennis, Newton, secretary; Dr. Z. C. Hagan, Union, delegate to Mississippi State Medical Association; and Dr. Dudley Stennis, Newton, censor.

DR. MOORE HEADS ARKANSAS GROUP

Dr. Berry L. Moore of El Dorado was elected president of the Fifth Councilor District Medical Society at the semi-annual meeting in El Dorado last month, succeeding Dr. J. P. Clements, Stephens. Other new officers: Dr. John P. McAlister, Camden, vice-president, succeeding Dr. L. A. Longino, Magnolia, and Dr. Joe B. Rushton, Magnolia, secretary, succeeding Dr. E. J. Munn, El Dorado.

Technical talks were heard from Dr. Allen Oschner of New Orleans and Dr. W. W. Scott of Chicago at a dinner attended by fifty physicians.

DR. ROWLAND IS ELECTED

Dr. Driver Rowland was elected president of the Methodist Hospital staff at the February meeting.

Dr. Jedd Scott was named vice president and Dr. Frank Burton, secretary-treasurer.

UROLOGY AWARD

The American Urological Association offers an annual award, not to exceed $500, for an essay (or essays) on the result of some specific clinical or laboratory research in urology.

"Essays must be in the hands of the secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before July 1, 1946."

OPHTHALMOLOGICAL SEMINAR—EMORY UNIVERSITY

Emory University will celebrate the one hundredth anniversary of the birth of ABNER WELLBORN CALHOUN, L.D., L.L.D., born April 16, 1845, died August 21, 1910, the first professor of ophthalmology of the Atlanta Medical College.

Your are cordially invited to be the guest of Emory University at an OPHTHALMOLOGICAL SEMINAR to be held in Atlanta, April 4, 5, 6, 1946.

RESUME PLACES WITH GREENVILLE CLINIC

The following physicians who have recently returned from the various battlefronts are members of the Gamble Brothers and Archer Clinic staff, Greenville, Miss.:

Dr. E. T. Ellison, captain, Medical Corps, who served for four years in the South Pacific, is again in charge of obstetrics and gynecology; Dr. W. H. Cave, captain, Medical Corps, who saw service on all of the European battle fronts, is orthopedic surgeon; Dr. B. F. Hand, colonel, Medical Corps, who spent five years in New Guinea and the Philippines, is associated with Dr. J. G. Archer on internal medicine. Dr. J. G. Marsh is a valuable addition to the surgical staff. Dr. G. F. Mood, lieutenant commander in the Navy for your years, is now associated with Dr. L. S. Gamble in the eye, ear, nose and throat; and Dr. C. A. Murry, lieutenant colonel, Medical Corps on the European front, is in charge of the urological department.

ANNOUNCEMENTS

A postgraduate course in diseases of the chest will be given under the auspices of the Illinois Chapter of the American College of Chest Physicians at Michael Reese Hospital, Chicago, Illinois, during the week April 1-6, inclusive.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 100, Illinois.

The annual meeting of the American Association for the Study of Goiter will be at the Drake Hotel, Chicago, Illinois, on June 20, 21, and 22. Please make your hotel reservations early.

DR. THOMAS E. WILSON
announces
his return to private practice
INTERNAL MEDICINE
and
CARDIOLOGY
Medical Clinic Bldg.
910 North State Street, Jackson, Miss.

Despite not any man, and do not spurn anything; for there is no man that has not his hour, nor is there anything that has not its place.

—Rabbi Ben Azai

That best portion of a good man's life,
His little, nameless, unremembered acts
Of kindness and of love.

—Wordsworth

Deaths

DR. C. A. EVERETT

Dr. Everett died February 8 in the home of his brother, M. C. Everett, in McComb, where he had been a guest for a few days.

For forty years Dr. Everett had practiced his profession, principally, in the Little Springs community and Bude, both in Franklin County. He was a graduate of the University of Louisville, Louisville, Ky.

He came to Brookhaven several years ago and from here went to take a position in the State Charity Hospital, Laurel. After serving as its superintendent, he returned to Brookhaven in 1944.

A native of Amite County, Dr. Everett was reared in Franklin. He graduated from Mississippi State College, Starkville, and the medical school of Louisville, Ky. University.

Surviving Dr. Everett are his wife, Mrs. Grace Rooker Everett, Brookhaven; two daughters, Mrs. Lexine E. Torrey, Meadville, and Mrs. Lillian E. Wilson, New Orleans; and a son, Charles A. Everett, Jr., formerly in the Marine Corps, a student in Loyola University, New Orleans; two sisters, Mrs. F. E. Williams, Little Rock, Ark., and Mrs Florence Adams, Smithdale, and a brother, M. C. Everett of McComb.

DR. HENRY W. E. WALTER

Dr. Henry W. E. Walther, genito-urinary specialist of New Orleans, La., died suddenly January 6 of a heart attack. A graduate of Tulane University, Dr. Walther had a reciprocity license with Mississippi, practicing in Gulfport in 1944.

DR. R. G. LADNER

Dr. R. G. Ladner, native Mississippian who practiced in Purvis and Pascagoula until 1943 when he moved to Texas, died in Goliad, Texas, January 6, of cerebral hemorrhage. He was born in Yazoo City, Miss., in 1887, was educated at Southwestern University, Dallas, Texas.

DR. ANDREW P. McARTHUR

Dr. Andrew Patterson McArthur, prominent physician in Moss Point, died Wednesday morning at his residence after an illness of six months. He was 83 years old.

A native of Mobile, Dr. McArthur came to Moss Point about 1914 and had practiced continuously until his illness forced his retirement last summer. For the past few years he had made no house calls but had carried on his office practice.

He was educated in the Mobile public schools and was graduated from the University of Alabama and the Mobile School of Medicine.

He is survived by his widow, Mrs. Mary K. McArthur; one son, John McArthur; a daughter, Miss Ella McArthur; and one granddaughter, Mary Day McArthur, all of Moss Point.

DR. J. C. CARTER

Funeral rites for Dr. J. C. Carter, 57, owner and operator of Carter Clinic, Magee, were held at Noxapater Baptist Church January 29.

The members of the Mason Lodge Charley Cockrell No. 93 had charge of interment in Noxapater cemetary.

Survivors are his wife and daughter, Katharine, Magee, two brothers of Louisville, one sister of Savannah, Ga., and a niece and a nephew of Vicksburg.

Pallbearers, E. D. Poneer, W. C. Mangum, G. E. Burns, Caley Myers, O. J. Biglane, D. M. Yelverton, J. V. Tuggle, Julius Wells, Wiley Wells and Roy Jones, all of Magee.

Dr. Carter was born in Chester, S. C., and was graduated from the University of Tennessee, Memphis, in 1914.

DR. E. G. MARTIN

Dr. Edwin Galtney Martin, 75, promiinent physician and extensive land owner of Bolivar County, died at his residence in Benoit February 22, following a short illness.

Dr. Martin was the son of the late Mr. and Mrs. James Walker Martin of Rodney. He received his education at Chamberlain Hunt Academy and was graduated from the University of Mississippi where he became a member of the SAE fraternity. His medical education was received at Louisville Medical College and Barnes Medical College, St. Louis.

In 1889 he came to Bolivar County and began the practice of medicine and since that time has contributed to the growth and development of the community, taking an active part in the life of the Delta. In 1909 he married Mrs. Cornelia A. Bostick of Beauford, S. C.

Dr. Martin is survived by his widow, three stepsons, Roger Bostick, Memphis, Cornelius Bostick, Greenville and J. A. Bostick, Benoit; four grandchildren, Roger Bostick, Jr., Memphis; Jane and Cornelia Bostick, Greenville and Mrs. Bill Robertson, Indianola.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—James G. Thompson, Jackson.

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—J. F. Lucas, Greenwood.

Orthopedics—Thomas H. Blake, Jackson.

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—Karl O. Stingily, Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

DERMATOLOGY

Volume 52, No. 5, November-December, 1945 Pages No. 408, 411, 412.

"Diaper Rash" Due to Perm-Aseptic. William L. Dobes, J.A.M.A., 128:281, (May 26) 1945.

Five cases of diaper rash caused by Perm-Aseptic are reported. It is used in the last rinse by diaper services. The purpose is to make textiles actively antiseptic as a protection to persons and as a preventive of destruction of textiles by bacteria, germs, mold and mildew. Patients wore the diapers treated with Perm-Aseptic for at least two months before symptoms of sensitivity appeared.

SKIN ERUPTIONS DUE TO THE LOCAL APPLICATION OF SULPHONAMIDES. G. A. Grant Peterkin, Brit. J. Dermat. 57:1 (Jan.-Feb.) 1945.

The author reports sixty-five cases of light eruption due to the external application of sulfonamide drugs. Thirty-two of the patients had been treated for impetigo; eight for impetiginized seborrheic dermatitis; three for septic infection of the limbs; two for secondarily infected tinea of the feet; five for "running ears" (otitis externa), and fifteen for wounds and burns of the limbs. In all but four cases the first sulfonamide drug to be applied was sulfanilamide powder. It is suggested that the eruption is invariably, or almost invariably, preceded by application of the powder and that the patient becomes sensitized to the drug by its inhalation. It is urged that powdered sulfonamide compounds should not be applied to the skin for minor conditions.

Over 200 patients, including 183 with impetigo or impetiginized seborrheic dermatitis, were treated in North Africa with five per cent sulfathiazole in paste of zinc oxide or Lanette wax cream and the skin freely exposed to light. Only one patient (with respirator dermatitis) had the eruption described, but this was mild and soon subsided. It is considered that five per cent sulfathiazole in a suitable base is probably as safe as such drugs as ammoniated mercury for dermatologic therapy and gives better results. A comparison is made between this eruption and other light dermatoses, such as Hutchinson's summer prurigo and pellagra.

PEDIATRICS

HERPES ZOSTER AND CHICKENPOX — Taylor James, *British Medical Journal,* 2: 385 (September 22) 1945.

The author says "herpes zoster is a condition which has excited interest at various times. It has been noticed to occur in epidemic form. Some years ago it was believed that second attacks of herpes never occurred. This view is no longer upheld.

"Herpes occurs in several regions. The intercostal is probably the commonest, and the cases the writer has met with in children have all been in this area. It should be mentioned, however, that the condition is never so painful in children as in adults, and the post-herpetic pain so often very troublesome and persistent in the latter is usually slight and of brief duration in the former. Besides the intercostal area almost any other nerve area may be the site of herpes, such as the shoulder, the neck, the buttock or thigh and the face. When it occurs in the face area there is always danger of affection of the conjunctiva and subsequent impairment of vision. In one patient whom the writer saw, three areas were simultaneously attacked—the face area, the shoulder area, and the intercostal. This patient did not recover.

"In 1917 Le Feuvre published a paper dealing with the association of herpes and chickenpox, and summed up by urging that herpes, on account of the close and probably causal connection between the two diseases, should be a notifiable disease. In four years he took notes of seven cases of chickenpox in children following herpes in a patient. Three of these cases occurred in his own practice, the others he met with accidentally.

"In an analysis of the cases seen or published Le Feuvre notes three classes: (1) chickenpox in one individual apparently contacted from herpes in another—41 cases; (2) herpes in one individual who had been in contact with a patient with chickenpox—five cases; (3) herpes and chickenpox occurring simultaneously in the same individual. He also mentions several cases in which a parent the subject of herpes had been warned to look out for chickenpox in the children. In these cases confirmation of the justice of the warning occurred usually in fourteen days.

"Some years ago the writer published a paper in which he recorded some cases showing the apparent connection between herpes and chickenpox. In a subsequent paper he returned to the subject, and reference is there made to several cases communicated to him by the medical men who had observed them. In the years that have since passed he had had several experiences confirming the close association of the two diseases, and has been impressed by the fact that very often isolated vesicles quite indistinguishable from those of chickenpox will be found in different parts of the body in patients suffering from herpes. It was no doubt an extreme case of this nature which justified Le Feuvre in describing the third class of these cases—herpes and chickenpox occurring simultaneously in the same patient.

"There certainly seems to be a strong case for adopting Le Feuvre's suggestion for making herpes a notifiable disease."

COMMENT

This is quite an interesting article on the subject of herpes zoster and chickenpox. We have been impressed with the idea that herpes zoster and chickenpox are associated; however, it is somewhat indefinite even yet, but it would be well to think of this when we are confronted with these diseases.

State Board of Health

Felix J. Underwood, M.D.

CONQUEST OF TUBERCULOSIS

Tuberculosis is one of the most serious public health problems of the state. In 1944 it was the leading cause of death among the infectious and parasitic diseases. The number of known cases reported and deaths resulting for the past few years is a challenge to physicians and public health workers.

Year	Cases	Deaths
1941	1,445	1,016
1942	1,480	1,092
1943	1,637	887
1944	1,905	813

Mississippi's Field Tuberculosis Diagnostic Unit and the local health departments have done commendable work in case-finding in spite of innumerable difficulties. Prior to May 1945 this service had not been too well organized due to the fact that no definite control unit assumed full responsibility for all phases of its program. With federal participation in tuberculosis control beginning at this date, the State Board of Health and the superintendent of the Mississippi State Sanatorium worked out a plan for the unification and expansion of the control program. The plan provided for setting up a Tuberculosis Control unit in the Division of Preventable Disease Control which would have responsibility for developing greatly expanded case-finding, education and local treatment by pneumothorax, all closely coordinated with the treatment program of the State Sanatorium and the program of the state and local tuberculosis associations and county health departments.

The plan provided for the training of nursing and medical personnel in tuberculosis control, the setting up of a central registry of all known cases, education of the public about tuberculosis, mass x-ray case-finding by the use of mobile 70 mm. units, extending out into every area of the state.

This Tuberculosis Control Unit is now quartered in the Lorenz Building 514½ East Amite Street, in Jackson. Dr. C. C. Smith, formerly with the Field Diagnosis Unit, will direct this important work, assisted by Dr. W. C. Redmon, clinician loaned by the U. S. Public Health Service. Miss Miriam Christoph, public health nurse, Mrs. Winnie Buckels Ray, educator, and Mr. Armond C. Watts and Mr. Richard B. Lefoldt, x-ray technicians.

Mobile x-ray equipment designed for x-raying large numbers of people, using small inexpensive film, is on order and when delivered the Unit will be ready to function. The x-ray is an excellent means of detecting early tuberculosis and it is hoped that it will be possible to x-ray every person in Mississippi fifteen years of age and over and to catch the disease early when it is amenable to treatment. Since pulmonary tuberculosis is primarily a disease of young adults, the case-finding program will no doubt detect the disease in many unsuspecting and apparently well persons. Experience of other states with such groups leads to the speculation that mass x-ray will reveal from one to two per cent with significant chest disease.

This new tuberculosis control program is one of tremendous scope. Its success depends in large measure upon the full coöperation of practicing physicians, civic organizations, and the general public. The eradication of the White Plague will mean the saving of almost a thousand lives a year in Mississippi.

*****

TYPHUS FEVER CONTROL

In 1933 there was 1 case of typhus fever reported in the state. None occurred in 1943 but there were 5 cases reported in 1935. Since that time the number of reported cases of this disease has steadily increased. In 1942, there were 59 cases, in 1943 there were 132 cases, in 1944 there were 178 cases, and in 1945, 228 cases were reported. The disease has appeared in 57 counties of the state; however, the majority of the cases have occurred in the 35 southern counties.

Since typhus fever of the type present in Mississippi is transmitted from rat to rat and rat to man by the rat flea, it is evident that this disease can be prevented permanently only by controlling or eliminating the rat which acts as the reservoir of infection. With typhus fever on the increase, the State Board of Health has endeavored to develop a control program which would be applicable in the existing county health department organization. Lack of equipment and personnel has prevented much progress being made during the past two years; however, plans are being made to proceed with such a program as soon as conditions permit.

Typhus fever work needs the coöperation of an entire community since control of the disease means control of the rat population of that community. Besides preventing a disease which is costly to the victim, elimination of rats represents an economic saving in the prevention of food and material destruction far beyond the cost of control. Because of the habits of rats, their control is a community problem and it is on that basis that the State Board of Health through its Sanitary Engineering Division hopes to build a program of coöperative effort embracing all effective means of rat control. Briefly, these means are:

1. Community cleanup and the installation of a satisfactory garbage disposal method to eliminate rat harborages and food for rats.
2. Vent-stoppage of buildings to prevent the ingress of rats into buildings to secure food and find harborage.
3. A continuing program of rat eradication consisting of poisoning and trapping of rats throughout the entire community.

In an effort to use such means as were available the Division of Sanitary Engineering has coöperated with several agencies in assisting a number of cities and towns interested in this problem. In 1943-1944 in coöperation with the U. S. Public Health Service a vent-stoppage and clean-up program was carried on in the business district of Gulfport under the supervision of the Harrison County Health Department. This city in 1943 had the largest number of cases of typhus fever ever reported from a single municipality in the state. The work undertaken proved effective in preventing the development of typhus fever in the business section of this community.

In January 1945 a control program was started in Pascagoula in coöperation with the U. S. Public Health Service and the Jackson County Health Department. Both of these programs proved difficult of execution because of the shortage of labor and material. Because of these factors costs were higher than would be expected under more normal conditions.

As a means of utilizing other resources available, the State Board of Health coöperated with the U. S. Fish and Wildlife Service and the State Plant Board in conducting rat-killing campaigns in communities throughout the state. In the fall, winter and spring of 1943-1944 such work was conducted in 59 cities and towns.

In 1944-1945, 62 communities were assisted. Excellent results were accomplished in reducing the rat population in these communities and the number of typhus fever cases appears to have been lessened. However, it is felt that unless more comprehensive, permanent and continuous work is carried on in communities experiencing typhus fever, the number of cases in the state will continue to increase.

Since it is an established fact that a reservoir of infection exists in the rat population of the state and that the number of cases of typhus fever is increasing at an accelerated rate, steps must be taken to develop a broad program for the control of this disease to protect all citizens. All the data available indicate the disease may establish a firm foothold on the state and that an increasing number will become victims of its debilitating effects unless assistance is made available to communities to fight the spread of infection.

It is far more economical to eliminate and control enviromental factors causing the spread of a preventable disease than to try to cope with the consequences when the disease becomes too prevalent and widespread. The people of the many communities affected are showing much interest in control programs and it is hoped that there will be sufficient support from the legislature to permit establishing permanent control procedures against the spread of typhus and thus protect the citizens from this unnecessary disease hazard.

*****

Miscellaneous News Notes

Mississippi physicians attending the refresher course in Obstetrics and Gynecology, given at Tulane University, Department of Graduate Medicine January 14-18, included the following:

L. H. Brevard, Deeson
W. H. Cook, Philadelphia
E. W. Ellis, Clarksdale
B. B. Harper, Itta Bena
B. J. Hewitt, McComb
C. H. Holman, Carrollton
J. D. Hutchins, Newhebron
S. L. Lane, Hollandale
J. A. Lauderdale, Jackson
C. H. Love, Aberdeen
K. P. Mangold, Greenville
T. R. Ramsey, Laurel
J. F. Simmons, Greenville
W. H. Simmons, Jr., Jackson
R. A. Street, Jr., Vicksburg
W. S. Witte, Leland.

Release of physicians from military service has made possible the return of several local health officers.

Dr. R. H. DeJarnette has returned to the Alcorn County Health Department.

Dr. Warren Jones is Health Officer in Noxubee County.

Dr. Jack G. Young has assumed his duties as Director of the Marshall County Health Department.

Dr. A. L. Adam is Director of the Pearl River County Health Department.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	Dec. 1945	Dec. 1944	Dec. 5-Year Average
Acute Poliomyelitis	7	4	4.2
Bacillary Dysentery	423	441	163.4
Dengue	0	0	0.0
Diphtheria	61	54	45.6
Influenza	22950	6476	16089.6
Measles	445	164	447.2
Meningococcus Meningitis	19	11	12.8
Other Forms Meningitis	10	4	4.8
Pellagra	85	141	149.8
Pneumonia	2368	1736	2185.4
Pulmonary Tuberculosis	104	113	110.2
Scarlet Fever	101	118	91.0
Smallpox	2	0	1.2
Tularemia	5	4	3.8
Typhoid Fever	2	4	4.0
Typhus Fever	20	2	9.4
Undulant Fever	1	2	2.0
Whooping Cough	311	483	579.2

There is still much ahead in the control of tuberculosis. Mortality reports may give the number who die, but it is also necessary that contacts be ascertained to find others who need medical care or to locate sources of infection who must be kept apart from the well. In 1943, only thirty-three per cent of the deaths from tuberculosis in Indiana were reported before the death certificate was recorded. Many of those were undoubtedly properly diagnosed and under care for some time, yet there were also many whose disease was not recognized until too late.

There is need for greater recognition of the problem of the recovery of the aged. Many are of the chronic type, able to be about, and therefore more dangerous because of the potentialities of spreading infection to others, particularly young children. Tuberculosis mortality rates are falling, but in general the percentage reduction is much higher in the younger groups than among those of older age. Murray A. Auerbach.

Woman's Auxiliary

President	Mrs. L. J. Clark	Vicksburg
President-Elect	Mrs. Stanley Hill	Corinth
First Vice-President	Mrs. H. C. Ricks	*Jackson*
Second Vice-President	Mrs. Henry Boswell	Sanatorium
Third Vice-President	Mrs. W. H. Anderson	Booneville
Recording Secretary	Mrs. Geo. W. Owens	Jackson
Fourth Vice-President	Mrs. Ben Walker	Jackson
Treasurer	Mrs. J. D. Simmons	Cleveland
Historian	Mrs. Harvey Garrison	Jackson

RESOLUTIONS

MRS. J. D. WILLIAMS
First President of the Woman's Auxiliary
to the
Mississippi State Medical Association

WHEREAS, God in His infinite wisdom has taken our beloved friend, Mrs. D. J. Williams, who in the sixteenth year of the Auxiliary was made honorary president for life, and

WHEREAS, It was always her pleasure to present the incoming president of the Auxiliary to the House of Delegates on the last night of the annual meeting, and by her sincere and loving personality inspire her to go forward with enthusiasm; and

WHEREAS, We feel that the increasing usefulness and influence of the organization have in no small part been due to her able, wise and sympathetic leadership and understanding, and

WHEREAS, We are most grateful that she was spared to us to guide and bless our organization to its majority, and

WHEREAS, We shall sorely miss her steady hand in our work, but will strive to make our efforts a loving tribute to her memory, therefore

Be It Resolved, By the Woman's Auxiliary to the Mississippi State Medical Association, that in the passing of our first president, the Association has lost one of its ablest coworkers and the Auxiliary has lost a comrade and great leader; and

Be It Further Resolved, That these resolutions be spread on the minutes of the Auxiliary, and a copy sent to her beloved husband, Dr. Dan J. Williams.

Mrs. John B. Howell
Mrs. Henry Boswell
Committee on Resolutions

CENTRAL MEDICAL AUXILIARY

The Woman's Auxiliary of The Central Medical Society met on February 5, in the home of Mrs. H. F. Magee, 1520 North State Street.

In the absence of the president, Mrs. George Riley, who was unable to attend because of illness, Mrs. A. L. Gray presided.

After calling the meeting to order prayer was offered by Mrs. H. C. Ricks.

The roll was called then new members and guests were recognized and welcomed. The wives of the doctors, who have returned from the armed services were heartily greeted.

A very beautiful and fitting tribute was paid the late Mrs. Dan Williams of Gulfport, who passed away in January.

Subscriptions to *Hygeia* for the junior high schools and the senior high schools in Jackson were renewed by the Auxiliary.

On completion of the business session, a delightful social hour was enjoyed, when the guests were invited into the dining room, where a delicious salad course was served by the following hostesses;

Mrs. H. F. Magee, Mrs. Hardy Hays, Mrs. Lawrence Long, Mrs. C. E. MacKenzie, Mrs. T. W. Kemmerer, Mrs. C. B. Mitchell, Mrs. Ben Walker, Mrs. A. G. Wilde, and Mrs. J T. Weeks.

The dining table was lovely with an embroidered linen cloth and a centerpiece arrangement of red carnations and valentines.

Mrs. C. F. MacKenzie and Mrs. Lawrence Long poured tea from the silver service.

In the living room there were arrangements of snapdragons and jonquils.

Mrs. Magee had as her special guests, Mrs. Henry Easterlin, Mrs. D. B. Sharron, Mrs. E. H. Galloway, Mrs. Crawford Dennis and Mrs. J. R. Smith.

Other members and guests present: Mrs. A. L. Gray, Mrs. P. R. Greaves, Mrs. I. C. Huggins, Mrs. F. D. Hollowell, Mrs. W. F. Hand, Mrs. T. H. Blake, Mrs. W. J. Witt, Mrs. H. C. Sheffield, Mrs. W. A. Smithson, Mrs. H. C. Hicks, Mrs. T. G. Ross, Mrs. F.

A. Donaldson, Mrs. H. C. Denser, Mrs. H. C. Chustz, Mrs. J. B. Marshall, Mrs. N. O. Schwein, Mrs. Charles Ward, Mrs. Walter Simmons, Mrs. John D. Carr, Mrs. W. R. Bethea; Mrs. Harvey Garrison, Sr., Mrs. N. R. Currie, Mrs. Felix Underwood, Mrs. E. D. Kemp, Mrs. Lee Reid, Mrs. Ray Biggs, Mrs. J. F. Armstrong, Mrs. Gordon Dees, Mrs. J. W. Barksdale, Mrs. John Walker, Mrs. William Noblin, Mrs. Sterling McNair, Mrs. H. F. Magee, Mrs. J. T. Weeks, Mrs. Ben Walker, Mrs. Harie Hays, Mrs. L. W. Long, Mrs. C. F. MacKenzie, Mrs. T. W. Kemmerer, Mrs. C. B. Mitchell, Mrs. A. G. Wilde, and Mrs. J. P. Wall.

DOCTORS ENTERTAINED BY AUXILIARY

Doctors in South Mississippi were honored Tuesday evening February 12 at a dinner party at Holmes on Highway 11 when members of the auxiliary of the South Mississippi Medical Society entertained in their honor in celebration of "Doctors' Day."

The long dining table, in the shape of a "T," held center arrangements of hearts made of pink perfection and Jarvis red camellias, ruffled at the edge with tulle and net lace. White candles burned in silver holders. Placecards were handsome lace valentines, and favors were individual match folders inscribed with "Doctors' Day."

Upon arrival guests were greeted by Dr. and Mrs. S. E. Bethea and Dr. and Mrs. Earl Green. They were then directed to an especially appointed lace-covered table where appetizing delicacies consisting of shrimp, olives, heart-shaped sandwiches and tomato juice cocktails were served by Mrs. J. P. Culpepper and Mrs. P. E. Smith. Dr. and Mrs. B. D. Blackwelder presided over the register, which was a large valentine booklet.

The dinner menu consisted of combination salad, filet mignon, French fried potatoes, hot rolls, ice cream and coffee.

The welcome was given by Mrs. Earl Green, president of the auxiliary, followed by the response by Dr. R. E. Schwartz, president of the South Mississippi Medical Society. A musical program was presented by Mrs. L. B. Hudson, Jr., and Mrs. P. E. Smith. Mrs. Hudson sang *Love's Old Sweet Song, Where the River Shannon Flows* and *Camp Town Races,* accompanied by Mrs. Smith on the piano. Mrs. Smith, also a violinist, played *Chant* and *Puppet Show* accompanied by Mrs. Hudson.

Brief talks were given by Dr. Joe Gatlin of Laurel, and Dr. T. E. Ross of Hattiesburg, who is a veteran of World War II.

The committee in charge of arrangements was composed of Mrs. J. P. Culpepper, chairman, Mrs. S. E. Bethea, and Mrs. P. E. Smith. Mrs. W. W. Crawford is chairman of the committee for the state organization.

Among those attending included Dr. and Mrs. B. D. Blackwelder, Dr. and Mrs. S. E. Bethea, Dr. and Mrs. E. W. Green, Dr. and Mrs. J. P. Culpepper, Jr., Dr. and Mrs. J. A. Mead, Dr. and Mrs. Nollie Felts, Dr. and Mrs. P. E. Smith, Dr. and Mrs. R. E. Schwartz, Dr. and Mrs. Harry G. Fridge, Dr. and Mrs. Lawrencee B. Hudson, Jr., Dr. and Mrs. T. E. Ross, Dr. and Mrs. Van C. Temple, Dr. and Mrs. C. C. Hightower, Sr., Dr. and Mrs. Eugene Busby, Dr. and Mrs. R. H. Clark and Dr. and Mrs. H. Carroll McLeod, all of Hattiesburg.

Those from Laurel present included: Dr. and Mrs. G. E. Holder, Dr. and Mrs. Clark Jenkins, Dr. and Mrs. J. S. Gatlin, and Dr. and Mrs. Paul Haney. Also present were Dr. and Mrs. J. N. Mason of Purvis and Dr. and Mrs. P. D. Hollaway of Collins.

The next meeting of the auxiliary will be held in March in Laurel.

HOW TO BECOME A WELL-INFORMED AUXILIARY MEMBER

Subscribe to the BULLETIN
Subscribe to HYGEIA
All officers use the HANDBOOK
All officers use "Program Outline," compiled and sent out by the national program chairman.

All the above publications may be secured by writing the central office:

Miss Margaret Wolfe, Room 410
42 East Ohio Street
Chicago, Illinois.

The ideal life is in our blood and never will be still. Sad will be the day for any man when he becomes contented with the thoughts he is thinking and the deeds he is doing, where there is not forver beating at the doors of his soul some great desire to do something larger, which he knows that he was meant and made to do. - Phillips Brooks.

CHLOR-U-CAIN

Burn Therapy

Greatly Shortens Healing Time

CHLOROPHYLL 1%

Accelerates burn healing, shortens time by as much as 50%*. Minimizes scar formation and speeds regeneration of tissue.

UREA 33.2%

Exerts a solvent action that aids in removing necrotic tissue debris. Tends to minimize foul odors and prevent infection.

BENZOCAINE 10%

Because only slowly absorbed, remains localized at burn site to give sustained anesthetic action.

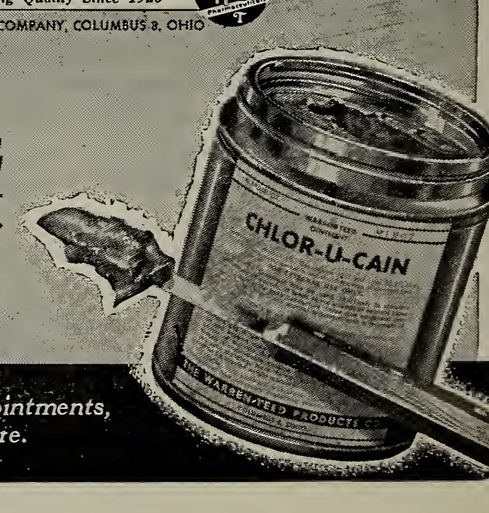
OINTMENT BASE

Vanishing, greaseless, washable, absorbent.

WARREN-TEED
Medicaments of Exacting Quality Since 1920
THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

**"Chlorophyll Urea Ointment in the Treatment of Burns and Chronic Ulcers." Industrial Medicine, 14:9, 730, Sept., 1945.*

REPRINT AVAILABLE
ON REQUEST



Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Bronchiogenic Carcinoma

ALTON OCHSNER, M.D.*

New Orleans, La.

PRIMARY BRONCHIOGENIC carcinoma is one of the most frequent carcinomas in the body, representing from ten to fifteen per cent of all primary carcinomas, and is found in from one to four per cent of all autopsies. The incidence of bronchiogenic carcinoma is definitely increasing as shown by the fact that the incidence at autopsy has increased within the past two decades. In the Charity Hospital in New Orleans in 1931 the incidence of bronchiogenic carcinoma as determined at autopsy was 0.47 per cent, whereas in 1940 the incidence had risen to 3.2 per cent. During the same period of time the incidence of primary gastric carcinoma as determined at autopsy varied very little and remained about 2.5 per cent.

Primary bronchiogenic carcinoma is prin- we have observed, 86.9 per cent occurred in cipally a disease of men. In 260 cases which men and 13.1 per cent in women. It occurs primarily in older persons as do most carcinomas. The eldest patient in our series was eighty-three years of age and the youngest was twelve years. Twenty-one and four-tenths per cent of the patients were in the fifth decade, 40.8 per cent in the sixth decade, and 24.5 per cent in the seventh decade.

Although one cannot be certain about the cause of bronchiogenic carcinoma, there is a good deal of evidence to support the contention that the increased incidence of primary bronchiogenic carcinoma is due to the increased incidence of cigarette smoking. There is a distinct parallelism between the incidence of primary bronchiogenic carcinoma and the sale of cigarettes, and probably the chronic irritation which results from continued inhalation of cigarettes after years of smoking is a responsible factor for the development of bronchiogenic carcinoma. Professor Roffo, who is the director of the Institute for Malignant Disease in Buenos Aires, has also shown that tobacco contains a tar which has a carcinogenic effect and that the application of this tar to the skin and mucous membranes of the respiratory tract in animals will produce cancer.

There are no classical symptoms and signs of bronchiogenic carcinoma. Because of its frequency, however, the condition must be suspected in every man past forty years of age who has an unexplained thoracic discomfort. Frequently there is a history of a previous respiratory tract infection, such as influenza, which has not subsided as normally occurs. There is usually persistent cough, and not infrequently hemoptysis is present. Wheezing may be only a manifestation. The late symptoms of bronchiogenic carcinoma are fever, which is usually due to the breaking down of the growth with secondary infection, and pain, the latter being the result of involvement of the chest wall. Loss of weight and digestive disturbances are also late manifestations.

Extension in bronchiogenic carcinoma is primarily to the regional lymph nodes, and in most instances a tumor remains localized in these nodes for a long period of time, permitting a cure in a relatively large group of instances, provided removal of the large nodes is done at the time the original lesion is treated.

In the diagnosis of bronchiogenic carcinoma, roentgenography is of great importance. The shadow produced by the tumor, if it is large enough to cast one, is suggestive. Small tumors may suggest an intrabronchial lesion by producing occlusion to a bronchus with resulting atelectasis. In the peripherally located tumors and particularly those involving the upper lobe, bronchiography is of great value. Of greatest importance in the diagnosis of bronchiogenic carcinoma is a bronchoscopic examination, because not only can the bronchoscopist visualize the tumor, but he is also able to obtain a piece of tissue for microscopic examination. In some instances, thoracic exploration is justified in order to make the diagnosis.

There is only one curative treatment for bronchiogenic carcinoma and that is pneumonectomy together with removal of the mediastinal lymph nodes. Pneumonectomy has become a relatively safe procedure and now carries a hospital mortality rate of about 10 per cent. The curability rate is not so high as it should be at the present time, because unfortunately bronchiogenic carcinoma is not being diagnosed early enough. Only when the condition is considered as a possibility can the diagnosis be made early and not until then will the cure rate in bronchiogenic carcinoma be high.

---

*From the Department of Surgery, School of Medicine, Tulane University, and the Section on General Surgery, Ochsner Clinic, New Orleans, La.

Several Wartime Therapeutic Advancements

JOSEPH M. MOORE, M.D.
Vicksburg, Miss.

As a medical officer in the Army of the United States during the recent world conflict, I had the opportunity either to work with or to observe several therapeutic advancements. It is intended in this communication to summarize certain of these agents and to make brief comments about them. It must be borne in mind that the views expressed are personal ones and that no official recognition by the War Department is implied.

BAL

BAL (American terminology for British anti-lewisite) or DTH (English nomenclature) is an extraordinary product from England of known chemical composition. It was evolved under military secrecy and an antidote against arsenicals and its formula thereby not disclosed. Briefly, the substance is an oil at ordinary temperatures with fair stability for one month if kept in all-glass containers. It decomposes when boiled or when mixed with water, but it is miscible and fairly stabile in organic solvents. The odor is much like that of hydrogen sulfide. The substance is a direct nerve poison by any channel of administration, including that of inunction and the maximum therapeutic dose for intravenous use is 0.1 cc. A 5 per cent solution in oil has been issued in the United States Army for intramuscular administration.

BAL is a true physiological antidote for the salts of heavy metals and for many of the organic combinations of these metals. In the event of poisoning by such quick-acting war gas as lewisite (a trivalent arsenical), this substance will act as a perfect antidote even if applied to the skin as late as one hour after the application of fifty minimum lethal doses of lewisite to the same area; it is quite effective when used four hours later than the application of a lethal dose of lewisite to the skin. In the event of ophthalmic burns from this war agent, BAL must be applied much sooner but, here again, the results are incredible as compared to any other treatment. I have treated some 400 experimental human lewisite burns with BAL and, in all cases, the prevention of local corrosion and systemic effects was truly remarkable.

The drug is now recommended as the treatment of choice for exfoliative dermatitis following arsenical therapy in lues. It would also seem to be the rational antidote for any heavy-metal poisoning; there seems to be no question of its superiority over Rosenthal's reagent sodium thiosulphate, hydrated ferric hydroxide, etc. Likewise, work is in progress to determine if BAL will permit the employment of massive doses of arsenicals in the treatment of lues.

Sulphacetamide

This is a pre-war modification of sulphanilamide by the so-called acetylation of the latter. The English have always termed the product albucid soluble while the United States Army used the title of sodium sulamyd. The substance is a white, crystalline solid with solubility to 30 per cent in water at room temperatures. It is slowly decomposed by saline solutions with formation of a yellow color in the mixture. A 3 per cent aqueous solution yields a soothing sensation when applied to the cornea; such a solution has a pH from 7.3 to 7.4. I am not familiar with any other aqueous solution of any sulpha preparation which is not definitely injurious to the superficial epithelium of the cornea. Large amounts of this drug were prepared during the past war for use in the secondary infections of eye casualties from chemical agents.

The drug, of course, is used under similar conditions in which one employs sulphanilamide. Urologists have used a 30 per cent solution for lavage of the renal pelvis while the 3 per cent solution can be instilled in the eyes in ophthalmology practice. Unlike sulphanilamide, the drug can be freely sprinkled into wounds and body cavities without fear of conglomerations or foreign-body formations. It has the advantage of rapid solubility with almost immediate high bacteriostatic concentration in the local tissue fluids; this quality is partially offset by its non-persistence in the field of application. The two sulpha preparations can be mixed together in order to secure the advantages of the parent sulpha preparation and its offspring or, for topical use, suspensions of both in ointment bases, methyl cellulose, etc. have been employed. Theoretically, a blood

---

*From the Department of Orthopedics, The Vicksburg Hospital, Inc., and Vicksburg Clinic, Vicksburg, Miss.

concentration of 30,000 mg. per 100 cc. could be attained by intravenous administration—the writer has used the drug four times by such channels without any reaction and with immediate elevation of the blood level to 15 mg. per 100 cc.

While the United States Army has banned the routine use of sulphanilamide in clean operative fields, I have employed sulphacetamide in doses up to five grams prior to closure of orthopedic procedures in my own practice in some 200 cases with satisfaction on the theory that the initial high concentration of the drug might protect the operative field during its period of greatest susceptibility to contamination. There have been no instances of delayed wound healing, discharge of blood serum, and like complications as occasionally seen following sulphanilamide. In three knee arthrotomies, I injected one gram of sulphacetamide twenty-four hours pre-operatively and I was unable to find any evidence of synovial at the time of surgery.

Amyl Salicylate

This substance is an oil which boils at 154° C. and is very stable. The odor is like that of oil of wintergreen while the color varies from colorless to deep brown depending upon its purity of composition. The impure preparations are satisfactory for use. The substance is insoluble in water but is ordinarily used without dilution. It is applied on the skin only and the maximum dose is said to be 75 cc. daily. Large doses give rise to salicylate poisoning. The vapors are said to be irritating to the eyes and applications about the genitalia are said to be contra-indicated; I have not seen any instances of irritation of either area in using the drug on human burns. The substance will leave an oily stain on fabrics and it has a peculiar quality of depositing an odor which clings to such fabrics through several launderings. In clinical use, the drug is generally appied by means of moistened sponges with overlying sheets of oiled silk or cellophane to retard evaporation.

Amyl salicylate was once recommended as an anti-rheumatic. An allied durg—butyl salicylate—proved itself valuable in World War I for the treatment of mustard gas burns; British investigators developed the use of the amyl form for the treatment of gas burns in this war. The substance has no antidotal bacteriocidal, or bacterio-static action, but it does have great efficiency in preventing or minimizing edema after chemical burns. I have not been able to find any satisfactory explanation for this apparent ability to decrease capillary permeability. So far as the power of formation of crusts or "tanning" be concerned, it is the only known substance which will tan a mustard gas burn but this action probably rests upon its ability to halt exudation from the burn area rather than upon any coagulating or precipitating reaction. In such burns, conventional tanners merely float off with the large amount of "weeping" present, but amyl salicylate, in an unexplained manner, is quite satisfactory in arresting such exudates.

While this substance was available to all English-speaking army personnel for treatment of chemical burns, I found no instances of its use for thermal injuries. Theoretically the drug should be of value in those thermal burns in which swelling of soft tissues is anticipated. I have employed compresses of the substance for five cases of vascular catastrophes of the lower extremities. Further formation of blebs did not occur nor was there any infection or increase in the soggy, water-logged condition of the cutaneous tissues. Without controls, these cases are not considered as clinically significant but it may well be that this drug may find its place in therapeutics once its true pharmacological action has been clarified.

Streptomycin

The literature on this drug is already too voluminous for any detailed account. I have used the preparation in chronic proteus infections of the soft tissues with much satisfaction and I have observed the favorable responses in some seventy-five paraplegics with pyelo-nephritis to this drug.

Nitrites

Hydrogen cyanide and like substances were revived during the recent war as possible casualty-producing agents. It was soon established that the conventional antidotes of sodium thiosulphate and methylene blue had fair actions as antidotes, but that the nitrites, in order of their volatility, were the antidotes of choice. Hence, in cyanide poisoning, the inhalation of amyl nitrite should be the most effective treatment with intravenous nitroglycerine as the next choice while sodium or cobalt nitrate would be rated as third choice. I list this development purely because such a poison, along with the cyanogens and cyanamides, are in common industrial and fumigation usage in peacetime with an ever present possibility of human injury.

Oxidized Cellulose

This substance is included in this report because of a new wartime utilization—that of an interposition material in joint surgery. Such an application was first suggested to me by Lieut. Col. Robert Carpenter, who noted that the callus inhibitory factor in this preparation plasties and excision of joints. Oxidized cellu- might render the substance useful in arthro- lose was issued in flat squares, physically like conventional 4x4 gauze sponges, except for its increased fragility and brittleness. It contained a thrombin substance and would, on application to bleeding surfaces, produce an immediate hemotasis over oozing surfaces or smaller vessels. The substance is completely absorbed and does not give rise to adhesions. I have observed its use in three cases of excisions of joints and, in each case, a satisfactory range of mobility was obtained postoperatively.

Summary

Several new therapeutic advancements are briefly described and their clinical applications partly listed.

NOTE: Chemical and laboratory data cited were largely compiled from papers on file in the War Archives, Canberra, Australia, and not available for publication.

The Modern Treatment of Ludwig's Angina

Charles M. Murry, Jr. and Gilbert E. Fisher
Birmingham, Ala.

LUDWIG'S ANGINA, first described over 100 years ago, is a virulent, rapidly spreading phlegmonous process arising from infections within the floor of the mouth or gingiva, which is located to a definite anatomic space. This space has for its floor the mylohyoid muscle, for its lateral walls the bodies of the mandible, for its posterior wall the muscles which form the base of the tongue and for its roof the tongue and mucosa covering the floor of the mouth. This disease is characterized by severe involvement of the cervical cellular tissue and profound toxemia.

The original site of infection is usually an ulcer of the oral mucosa, a carious tooth[1] or active gingivitis. The rapidly spreading cellulitis may assume grave proportions and menace the life of the patient by producing severe edema of the larynx and subsequent suffocation.

The tongue is forced upward toward the roof of the mouth simultaneously with marked edema of the mucosa of the floor of the mouth. Externally there is a tense, non-fluctuant swelling of the soft tissue of the neck which may extend from the lower border of the mandible down to the clavicle. This usually becomes board-like in its rigidity and is extremely tender on manipulation.

An abscess may be formed which may occupy one of four possible positions. It may be found in the potential space between the muscles of the base of the tongue and the geniohyoid muscle or it may be observed to lie at a lower level between the geniohyoid and mylohyoid muscles on either side of the median line of the neck.[2]

The streptococcus is usually found in predominance although with this organism may be associated the staphylococcus, bacillus coli and in some cases gas producing organisms of the anaerobic type. There is rapid edematous infiltration of the tissues and the effusion may be serous, purulent, fibrinous or hemorrhagic. Emphysema may be present. In the early stages pus will not as a rule be found but rarely does the process become absorbed under conservative treatment and subside without pus formation.

The course of the disease may be mild for several days, then suddenly become alarmingly severe when edema and swelling interfere with respiration. The temperature, even in the acute form, may never rise above 99°, but it is usually of a septic nature ranging between 102° to 105°, accompanied by chills, succeeded by profuse perspiration. As the disease progresses the patient becomes increasingly dyspneic. Swallowing is excrutiatingly painful and speech is interfered with. The tongue may be forced upward to such a degree that its tip may be forced to protrude between the incisor teeth.

When a patient presenting the above clinical picture is seen active treatment must begin at once. Hot saline irrigations are administered every two hours. Hot compresses are immediately applied to the neck. If the respiration is markedly embarrassed tracheotomy should be performed. The advent of sulfonamide and penicillin therapy has unquestionably proved to be a great adjunct in the treatment of this disease and chemotherapy should be instituted as early as possible. Surgical incision and drainage of the involved area should be established as early as possible before this phlegmonous process breaks through anatomic barriers separating it from the carotid sheath or mediastinum.

Five such cases have recently come under our observation and will be briefly reported:

Case I: A fifty-year-old white man was admitted to the hospital on 1-22-44 complaining of a severe pharyngitis of 72 hours duration. The day of admission he developed a marked swelling in the soft tissue in the floor of the mouth and neck.

Physical examination revealed a well developed, well nourished white man in acute distress with temperature 102°, pulse 90, and respiration 24. The tongue was greatly swollen. All of the soft tissues in the floor of the mouth were edematous and hemorrhagic. The soft tissue of the neck was exceedingly swollen and tense anteriorly and bilaterally. The pharynx was poorly visualized. There was no respiratory embarrassment. The remaining physical examination was within normal limits. The blood showed 4,820,000 red blood cells with 84 per cent hemoglobin and 26,750 white blood cells with 92 per cent polymorphonuclear neutrophils. The urine was negative.

The patient was given 20,000 units of penicillin at once and then 10,000 units every four hours. He was given hot saline irrigations to the mouth every two hours and hot packs to the neck. 1000 cc. of 5 per cent glucose in saline were given and repeated in eight hours.

Eight hours after admission the patient became quite dyspneic and slightly cyanotic. A tracheotomy was performed under local anesthesia. The next day his general condition was very poor. The tongue was terribly swollen and the tip protruded from the lips. Surgical drainage of the neck was considered. The dosage of penicillin was doubled and he was given two grams of sodium sulfadiazine intravenously and then one gram every four hours. On 1-24-45 a transfusion of 500 cc. of whole citrated blood was given and in the evening, under general anesthesia, a transverse incision was made in the submental region. This was carried through the mylohyoid and diagastric muscles to the muscles of the tongue. The tissues were separated widely and the wound packed open. There was much edema present but no pus.

On 1-25-45 the sulfadiazine was discontinued. On 1-26-45 the tracheal tube was changed and the wound noted to be fairly clean. The patient was vastly improved but was unable to close his lips over his tongue. The penicillin was discontinued after 600,000 units. On 1-28-45 the temperature had dropped to normal. On 1-29-45 the tracheal tube was removed. The tongue was then back in the mouth and the patient could breathe well with the tracheal tube removed. The swelling of the neck had largely disappeared. By 2-2-45 he was able to take food by mouth and on 2-3-45 he was discharged.

Case II. A twenty-seven-year-old colored woman was admitted to the hospital on 3-30-45 with a chief complaint of inability to swallow. She stated that for one week prior to admission she had a severe sore throat which had gradually grown worse. Two days prior to admission she had difficulty in swallowing and mild respiratory distress.

Physical examination revealed a well developed, well nourished colored woman in acute respiratory distress. The temperature was 100, pulse 120 and respiration 28. She had great difficulty in opening her mouth as the tongue was elevated forcefully against the hard palate. The tongue was deeply cyanotic. The mucosa below the tongue was intensely indurated but no exudate could be seen. The neck was extremely swollen and brawny induration found from the mandible to the clavicles. She was in marked respiratory distress and soft tissue retraction was present. The remainder of the physical examination was essentially negative.

On admission the blood showed 3,000,000 red blood cells with 71 per cent hemoglobin and 20,200 white blood cells with 92 per cent polymorphonuclear neutrophils. The urine was negative and the blood Kahn positive.

The patient was given 1000 cc. 5 per cent glucose in saline containing 2.5 grams of sodium sulfadiazine at once. This was repeated every eight hours, alternating the glucose in saline with distilled water. 20,000 units of penicillin were given every four hours. Heat was applied to the neck. During the evening of admission her respiration became so labored that a tracheotomy was performed under local anesthesia and she was then placed in a steam tent. The next day she was fairly comfortable and was able to take fluids by mouth. After the third day she was able to take one gram of sulfadiazine every four hours with an equal amount of sodium bicarbonate by mouth. The penicillin and sulfadiazine were discontinued on 4-5-45. The temperature had returned to normal on the fifth hospital day. The tracheal tube was removed on 4-15-45 and no secondary closure was necessary. The patient was discharged on 4-15-45.

Case III: A 20-year-old white woman was admitted to the hospital 11-7-45 complaining of swelling of the neck and fever for five days' duration. Five days prior to admission a lower third molar tooth was extracted. A few hours later swelling of the neck developed accompanied by the onset of fever. Pain on swallowing the following day and the fever and swelling increased. Forty-eight hours prior to admission dyspnea and marked dysarthria became pronounced and only a small amount of liquid nourishment could be taken.

Physical examination revealed a well-developed, well nourished white woman in obvious distress with temperature 103, pulse 130 and respiration 24. There was no cyanosis and her respiration was not labored. She had difficulty in opening her mouth. The tongue was red and swollen but was not tender. The floor of the mouth was edematous. Posteriorly on the left a small amount of thin purulent exudate could be seen. The pharynx was poorly visualized. Anteriorly below the mandible the neck was markedly swollen, tender, hot and board-like in firmness. The remainder of the physical examination was essentially negative.

The blood count revealed 3,500,000 red blood cells with 65 per cent hemoglobin and 9,650 white blood cells with 88 per cent polymorphonuclear neutrophils. The urine showed three plus albumin with three to four white cells and two to three red blood cells per high power field. The blood Kahn was negative.

She was given 1000 cc., five per cent glucose in saline intravenously and started on 20,000 units of penicillin every three hours. An initial dose of two grams of sulfadiazine by mouth was given; followed by one gram every four hours accompanied by an equal amount of sodium bicarbonate. Three days of this sulfadiazine therapy failed to bring the blood level above 2.6 milligrams per cent; thus intravenous sodium sulfadiazine was given. 3000 cc. of five per cent glucose were given daily in distilled water and saline.

Two days after admission her temperature had dropped to 100°. The swelling was unchanged although the patient felt much better. Fifty hours following dyspnea and cyanosis suddenly developed accompanied by a sharp rise in temperature and it was necessary to perform a tracheotomy under local anesthesia. Surgery with open drainage was considered and on 11-10-45 an incision was made parallel to and 2.5 cc. below the right mandible. The deep structures of this region were explored by blunt dissection and a pocket of purulent material encountered. A rubber tissue drain was inserted.

On 11-11-45 her condition was only slightly improved, her temperature 102.2°. However, general improvement was gradual and on 11-15-45 the temperature had returned to normal and the tracheal tube was removed. All chemotherapy was discontinued on 11-17-45. On 11-21-45 the tracheal wound was healing so slowly that a secondary closure was considered but this was not carried out. On 11-25-45 the wound was closing nicely and the patient was discharged. She received a total of 1,500,000 units penicillin.

Case IV: A twenty-two-year-old colored woman was admitted to the hospital on 11-25-45 complaining of pain and swelling in the neck of three days' duration. Four days prior to admission a painful right lower third molar tooth was extracted. Six to eight hours later fever and slight swelling below the right mandible had developed. The swelling rapidly grew more extensive and spread the opposite side. For two days prior to admission she had dificuty in swallowing and could take nothing but fluids in her mouth. This was accompanied by slight difficulty in breathing.

Physical examination revealed a well developed, well nourished colored woman in acute distress. The temperature was 102°, pulse 100 and respiration 20. She was able to open her mouth only about half an inch and the pharynx was poorly visualized. The tongue was markedly elevated and dysarthria had developed. There was bilateral tenderness on palpation along the floor of the mouth. There was no induration under the tongue and no visible exudate in the mouth. The neck, anteriorly below the mandible, was markedly swollen bilaterally, and exceedingly tense on palpation. The remainder of the physical examination was within normal limts.

On admission the blood showed 3,510,000 red blood cells with 61 per cent hemoglobin and 31,350 white blood cells with 92 per cent polymorphonuclear neutrophils. The urine showed a slight trace of albumin and the blood Kahn was negative.

The patient was placed on a liquid diet as tolerated; hot saline irrigations to the mouth and was given 1000 cc. five per cent in saline containing 2.5 grams of sodium sulfadiazine. One gram of sulfadiazine every four hours with an equal amount of sodium bicarbonate was given orally. The following day penicillin therapy was begun (20,000 units every three hours). Her temperature at this time was 103°. On 11-27-45 wide surgical drainage was carried out. An incision was made on each side of the neck about 2.5 cm. below and parallel to the mandible. The fascial planes of the neck were explored and purulent material encountered on each side. Rubber tissue drains were put in place. The drainage had a very foul odor.

On 11-28-45 the temperature was down to 100° and the patient's general condition was improved. The sulfadiazine and penicillin were continued postoperatively. On the fifth postoperative day her temperature was normal. All medication was stopped on 12-3-45 and on 12-8-45 the patient was discharged. At the time of her discharge there was still a slight amount of induration near the angle of each mandible. She received a total of 1,160,000 units of penicillin.

Case V: A forty-nine-year-old colored man was admitted to the hospital on 12-13-45 complaining of inability to open his mouth. Six days prior to admission a right lower molar tooth had been extracted. Forty-eight hours following this operation the lower right jaw began to swell and become tender. This gradually spread to the other side and became more extensive, causing dysphagia. The patient had experienced no respiratory difficulty.

Physical examination revealed a well developed, well nourished middle aged colored man in moderate distress. The temperature was 101.8°, pulse 100 and respiration 20. He was able to open his mouth only slightly. The tongue was noted to be greatly swollen and protruded slightly through the incisor teeth. There was slight induration beneath the tongue along the floor of the mouth and the mouth was noted to be extremely dirty. The pharnyx was very poorly visualized. The neck anteriorly was firm, non-fluctuant, hot and tender below the mandibles on either side. The remainder of the physical examination was within normal limits.

On admission the blood showed 3,000,000 red blood cells with sixty-one per cent hemoglobin and 9,600 white blood cells with eighty-eight per cent polymorphonuclear neutrophils. The urine examination was negative. The blood Kahn was negative.

Chemotherapy was instituted consisting of 20,000 units of penicillin every three hours and 1000 cc. five per cent glucose in saline containing 2.5 grams of sodium sulfadiazine and an equal amount of sodium bicarbonate every eight hours. The patient was given hot saline irrigations to the mouth every three hours when awake and heat was applied to the neck.

Within twenty-four hours the temperature was normal and with the exception of a sharp rise up to 101 on the sixth hospital day, remained within normal limits. On 12-15-45 there was very little change in the general appearance of the patient, although he stated that he felt much better. The tongue had receded and the patient was able to open his mouth more than on admission.

On 12-17-45 a culture was taken of the purulent exudate from the floor of the mouth and on 12-20-45 a report of hemolytic streptococcus viridans was received. By 12-23-45 the patient was able to take adequate fluids by mouth and the intravenous fluids were discontinued. The penicillin and sulfadiazine were discontinued on 12-25-45.

On 12-31-45 the patient was feeling fine and very anxious to go home. There was still some slight induration along the angles of the mandibles at the time of discharge on 12-31-45.

SUMMARY

1. Five cases of Ludwig's angina are reported, three of which were of dental origin.
2. All cases were treated with combinations of sulfadiazine and penicillin. The first two cases were given 20,000 units of penicillin

every four hours, whereas the remaining three were given the same dosage every three hours. The change in administration of penicillin from every four to every three hours was based on the fact that studies have shown that the concentration in the blood reaches its maximum about fifteen to twenty minutes after administration and falls rapidly so that eighty per cent appears in the urine within two hours.

REFERENCES

1. Furstenberg, A.C.: Acute Suppurations of Throat, Mouth and Cervical Region. Reprint from Transactions of Twenty-fourth Annual Meeting, Pacific Coast Oto-Ophthalmological Society, p 3.

2. Blassingame, Charles D.: Angina Ludovici, An Anatomic and Clinical Study, Arch. Otolaryng. 1928 8:159.

3. Factors Determining the Dosage of Penicillin in the Treatment of Infections. The Bulletin of the U. S. Army Medical Dept. Vol. IV, No. 2, August, 1945, p 181.

Postural or Orthostatic Hypotension

W. K. PURKS, M.D.
Vicksburg, Miss.

It has been very aptly said that "There is hardly a condition in the field of medicine that disturbs the patient or affects his general morale as much as does the loss of consciousness, or a severe attack of vertigo."[1] Postural hypotension is such a disorder, and for this and other reasons deserves our consideration. Typical cases of idiopathic orthostatic hypotension are relatively rare. Prior to 1940 not more than 50 such cases had been reported.[2] We must, however, constantly bear in mind that varying degrees of orthostasis are seen in many disorders and will be of great importance in the consideration of many patients.[3] It cannot be too strongly emphasized that in all disorders associated with loss of consciousness or of extreme dizziness the physical examination cannot be considered complete until the blood pressure has been recorded in the upright or standing posture. No doubt many patients who bear the unpleasant stigma of epilepsy do in fact have orthostatic hypotension, a condition in which treatment offers good prospects of symptomatic relief.

Time does not permit a complete discussion of the syndrome of orthostatic hypotension. I wish, however, to review the salient features of this syndrome, as first described by Bradbury and Eggleston[4] in 1925, to suggest those conditions in which orthostasis is most often seen as a temporary or symptomatic finding, and finally to present briefly a case that illustrates the idiopathic variety.

The features of idiopathic hypotension as described by Bradbury and Eggleston are as follows:

1. Marked fall in blood pressure and occurrence of syncopal attacks when the patient assumes the upright posture.
2. Slow pulse which does not change with posture.
3. Increased distress during the summer months.
4. Anhydrosis, or hypohydrosis.
5. Slightly lowered metabolic rate.
6. Slight or indefinite changes in the central nervous system.
7. Slight elevation of the blood urea nitrogen.

Some additional, though less constant, findings are:

1. Greater urine output during the night.
2. False or unusual appearance of extreme youth.
3. Pallor or secondary anemia.

It is unlikely that every case will show all of the above mentioned features. The really critical finding is the change in blood pressure with the assumption of erect posture. The pulse rate has in some instances been sharply

---

*Read in part before Southern Sectional Meeting, American Federation of Clinical Research, December 4, 1943.

elevated as the blood pressure falls. In fact, MacLean and Allen[5] have seen fit to describe two syndromes: 1) orthostatic hypotension and, 2) orthostatic tachycardia. The latter condition is practically identical with the former, except that the fall in blood pressure is less marked, apparently because of the rapid heart action which results in partial compensation. The increase of symptoms during hot weather is a rather common feature. In this connection it is of interest to note the studies of Kopp[9], who found that patients who received fever therapy show orthostatic phenomena which persist for a time after body temperature has returned to normal. These changes are considered due to impairment of vascular tone and poor tone of the skeletal musculature, especially of the abdomen and legs, resulting in pooling of blood in dependent areas. No doubt, the same mechanism is a factor in idiopathic hypotension. The lack of sweating or diminished sweating in these patients is considered an evidence of impaired sympathetic function. At present, most evidence points to impaired sympathetic function, either central or peripheral, as the mechanism responsible for orthostatic hypotension. Stead and Ebert[7], after careful experimental studies of three patients, concluded that these patients did not in fact pool an abnormal amount of blood in the legs, but that reflex vasoconstriction which maintains the normal blood pressure in normal subjects under similar conditions does not occur in patients with orthostatic hypotension. This loss of reflex vasoconstriction is responsible for a fall in blood pressure and is the fundamental disturbance in postural hypotension, and distinguishes it from other types of poor functional adaptation. MacLean and Allen, although granting the importance of lack of vasoconstriction as a factor in orthostatic hypotension, feel that the fundamental mechanism is an inadequate venous return to the heart. This has been demonstrated by the Flack test, which consists of having the subject exhale against an unyielding resistance, thereby increasing the pressure against the veins in the thorax. This results in syncope, and x-ray at this time will demonstrate a decrease in heart size. In practice the test is performed by having the patient blow against the column of mercury in the sphygmomanometer. Normal subjects can sustain forty millimeters of mercury pressure for twenty seconds. The individual with orthostatic hypotension develops syncope within ten seconds.

Now let us briefly list some of the conditions in which orthostasis frequently is observed, although the patient may not fall into the group of idiopathic hypotension. Most of these disorders are associated with poor muscle tone, inadequate venous return, or possible damage to the autonomic nervous system, either central or peripheral: 1) myasthenia gravis, 2) Addison's disease, 3) heat exhaustion, 4) prolonged bed rest, 5) following prolonged toxic or infectious agents, 6) head injuries—post concussion syndrome, 7) tabes dorsalis, 8) Simmonds disease, 9) spinal cord lesion, 10) following surgical sympathectomy, and 11) in psychically inferior individuals.

Some comment should be made regarding the treatment. Spontaneous remissions are common. The treatment of the idiopathic variety differs from that of the symptomatic variety only in the necessity for removal of the causative factor if possible in the latter condition. A great variety of drugs have been used, and reports of successful treatment with ephedrine[8], benzedrine[9], and paredrine[10], and neosynephrin [11] are frequently seen. In each of these the relief obtained occurs only when the blood pressure is raised to such a degree that the level of blood pressure following postural change is above the syncope level. The mechanism of the blood pressure fall is not abolished. Other drugs, such as anterior pituitary and adrenal cortical substance, have been tried with varying success. It now appears, however, that the only treatment which may abolish the abnormal mechanism is the so-called "Heads-up" treatment, reecommended by MacLean. This consists simply of having the patient sleep with the head of his bed elevated eighteen inches. This method has been almost uniformly successful in pure orthostatic hypotension, in orthostatic tachycardia, and in many instances of symptomatic orthostatic hypotension.

CASE REPORT

E. E. R., male, age 20, was first seen on June 26, 1942, complaining of attacks of unconsciousness of ten years' duration.

His family history was negative except that his father had an overactive carotid sinus reflex and suffers attacks of syncope.

His past history indicates that at the age of eighteen months he fell from a bale of cotton and struck his head and was momentarily unconscious. His childhood subsequently was uneventful except for rather poor progress in school. At the age of ten years he began having the attacks referred to in his complaint. He consulted several physicians and in 1935 a definite diagnosis of epilepsy was made.

Present Illness: At the age of ten years he had his frist attack of unconsciousness. Subsequently attacks have occurred at frequent intervals. There has been no aura preceding the attacks. The attacks have never occurred in the recumbent posture nor at night. He has had no convulsive movements and has never bitten his tongue. Most attacks occur in the early morning hours and have been distinctly worse in the summer months. The usual duration of unconsciousness is one to two minutes, always relieved when he falls to the floor or is placed in the recumbent posture.

Physical examination showed no abnormalities except those related to blood pressure and his pulse. These will be detailed later. There appeared to be somewhat less than a normal amount of perspiration. Carotid sinus pressure disclosed no abnormal response. The heart size is normal. Electrocardiogram in recumbent posture showed normal curves. Electrocardiogram in upright posture showed tachycardia, rate 125, slight shift of the axis toward the right, and an inverted T-wave, in the third lead. Routine blood and urine studies were negative. X-ray of the skull was negative. X-rays of the kidney area showed no abnormal calcification.

His blood pressure changes were as follows:

Date	Medication	Hr.	Recumbent	Upright	Symptom
6/26	Noie	4:00 P.M.	110/77	0	Dizzy
6/27	Benzedrine				
6/28	Benzedrine	8:00 A.M.	110/60	0	Dizzy
		1:00 P.M.	115/60	0	Dizzy
		3:15 P.M.	118/64	0	Dizzy
6/29	Cort. ext.	8:00 A.M.	110/60	0	Dizzy
	Cortalex	12 noon	110/50	0	Dizzy
	t. i. d.	5:30 P.M.	110/54	110/80	Stable
6/30	Cortalex	1:00 A.M.	110/40	0	Dizzy
	t. i. d.	10:30 A.M.	116/54	0	Dizzy
7/1	Cortalex	9:00 A.M.	110/48	78/58	Dizzy
	t. i. d.	10:30 A.M.	114/64	0	Dizzy
		3:20 A.M.	108/40	94/78	Stable
7/2	Cortalex	8 A.M.	108/40	90/50	Stable
	t. i. d.	12 noon	110/40	108/60	Stable
		2 P.M.	114/48	98/48	Stable

In the recumbent posture the blood pressure was 110/78, and the pulse 72. Upon assuming the upright posture he became dizzy; the pulse increased to 140 per minute, and his blood pressure became too low to record. He was returned to recumbent position before syncope developed. This sequence of events was repeatedly observed on the date of the first examination. The patient was then started on benzedrine, in doses of five milligrams, three times daily. This drug caused nervousness and did not correct the blood pressure changes, so that it was discontinued in forty-eight hours. The patient was then given ten cc. of adrenal cortical extract at 10:30 A.M. on the third day, and subsequently received one tablet of adrenal cortical extract by mouth three times daily. Within three days he was able to tolerate the upright posture, and although his blood pressuse still showed a fall in the upright posture, he had only slight dizziness and was permitted to leave the hospital. During the subsequent months he had no trouble so long as the cortical extract was taken, and later in the winter he discontinued all medication. During the summer of 1943 he had an occasional attack of dizziness, but has not sought medical advice. He was advised to elevate the head of the bed, and although readings of his blood pressure have not been made, it may be assumed that he is doing satisfactorily, as he has been enlisted in the Army as a paratrooper for the past year.

Differential Diagnosis of Nasal Allergy*

D. W. HAMRICK, M.D.
Corinth, Miss.

It's not ashes to ashes, but dust to dust
Or molds, or pollens, or maybe rust;
Strange as it seems it's indubitably true
The inevitable allergy betwixt earth and you.

Before the days of Emily Post the stain so often seen on the proverbial coat-sleeve may have been due to nasal allergy. In the field of otolaryngology ten years ago we have all heard the statement that the number of handkerchiefs a patient used per day was a diagnostic criteria of nasal sinusitis. Today I would say emphatically that it is far more indicative of nasal allergy.

In a review of 720 patients complaining of nasal symptoms Kuhn[1] found that approximately 20 per cent had definite nasal allergy. Opheim[2] in a study of a large number of patients concludes that 25 per cent of all patients with nasal symptoms are found to be allergic. Baum[3] found that out of 7000 patients with nasal complaints, 191, or 27.3 per cent, proved to be allergic. Hansel[4] in a review of 324 patients with nasal complaints, found that 142 had manifestations of nasal allergy, or approximately 24 per cent.

had manifestations of nasal allergy, or approximately 24 per cent.

A perusal of the literature shows conclusively that approximately 20 to 25 per cent of patients coming to us with nasal symptoms are definitely allergic. It is this group of patients who are constantly seeking relief at our offices day after day. In the past we have sprayed them, packed them, tried all the new nose drops on them, used escharotics on them, and prescribed for them with little or no relief of distressing symptoms. In fact we have made most of them worse. The one plea that is made in this presentation is a better diagnostic study of this group of unfortunate patients.

The child who has a continuous cold and a "runny" nose is a suspicious case, and should have allergic investigation. When a mother says her child takes "cold" every time it sticks its head out of the house, the answer may well be allergy.

Polyposis in the opinion of Kern and Schenck[5] is always an evidence of nasal allergy.

The so-called chronic sinus patient according to Arbuckle[6] has an allergic background in well over 50 per cent of the cases.

The work of Woodward and Swineford[7] shows about this same percentage of allergic background.

The so-called vasomotor rhinitis, and many of the dry stuffy noses are found to be allergic.

A family background for nasal allergy is found in only 60 to 70 per cent of the cases. Past and present history of allergic symptoms are found in about 85 per cent of adults, and about 70 per cent of children according to Hansel.[8]

In the differential diagnosis of nasal allergy the past history of being a "collicky" baby, past history of eczema, or urticaria are infantile indications of allergy. The onset of allergic symptoms may date from the acute infectious diseases of childhood or acute upper respiratory infections. The frequency, duration and onset of attacks are important. The place of residence, occupation, climate, environmental contacts, the season of onset and its effect on the symptoms must be considered. Also a careful diary of all foods eaten is necessary.

A careful history is often almost conclusive in making a correct diagnosis.

The appearance of the nasal mucous membrane and the size of the turbinates varies in direct proportion to the edematous involvement present. The color of the membrane may vary from normal, slightly pale, markedly pale or edematous, to red according to Jones.[9] Nasal polypi always indicate nasal allergy. The appearance of the nasal mucous membrane and its adnexa is not conclusive evidence of nasal allergy *per se.*

The point of emphasis that I want to leave in this discussion is the microscopic examination of nasal secretion from every patient acute, or chronic who is having nasal symptoms. The specimen is taken by having the patient blow his or her nose on a piece of ordinary waxed paper. Make a smear of the thicker parts of this secretion on an ordinary microscopic slide.

---

*Read before the joint meeting the Northeast Mississippi and North Mississippi medical societies, University, Miss., March 12, 1946.

The smear is then fixed and stained for eosinophiles. The most distinctive stain for this is Hansel's, Geimsa's or Wright's blood stains may be used, but they are not nearly as dramatic in bringing out the eosinophiles. In a routine examination of nasal smears from eighty-eight cases of nasal allergy, Kuhn found that twenty-six showed an eosinophilia of over 50 per cent, thirty-four varied from 10 to 50 per cent eosinophiles, and twenty-eight showed an eosinophilia of from 1 to 10 per cent of all cells. The presence of any eosinophiles in this secretion is certainly suspicious of an allergic tissue reaction. In bacterial infections the stained nasal smears show almost 100 per cent neutrophilic cells. There are many variations in the miscroscopic picture varying from almost 100 per cent eosinophilia in purely allergic nasal secretions to only streaks and clumps of eosinophiles in the mixed inflammatory secretions.

X-ray and transillumination in many of our nasal cases is still a necessary part of our diagnostic study. "Roentgenographic changes in the sinuses of allergic noses are found to vary from simple edema to extreme polypoid thickening. "[10] Transillumination and its interpretation depends entirely on the experience and clinical interpretation of the operator. The usual picture in nasal allergy is one of general haziness of all sinuses, varying according to the amount of edema present.

Skin testing is very reliable in the inhalant group of allergens running about 80 to 95 per cent positives, but a negative skin reaction does not rule out nasal allergy. Skin testing with the food allergens is not conclusive, and can be ruled out only by an elimination diet.

In a patient with nasal symptoms in whom the evidence is not conclusive of nasal allergy from the fore-going studies, one is justified in doing a therapeutic test. This consists in giving a subcutaneous dose of 0.10 cc. to 0.20 cc. of a 1:10,000,000 dust extract. If there is a marked improvement in nasal symptoms lasting for several days the patient should be given complete skin test study.

The examination of smears of nasal secretions is one of the most neglected of all nasal examinations. A wider recognition of nasal allergy in the treatment of nasal symptoms will bring the patient untold relief, and save a lot of unnecessary and mutilating nasal surgery.

REFERENCES

1. Kuhn, H. A.: Allergy in Ear, Nose and Throat Practice. Jour. Ind. State Med. Ass'n. 32:241, 1939.
2. Opheim, O. F.: Allergic Diseases of the Nose and Sinuses. Nord. Med. tidskr. 16:1607, 1938.
3. Baum, H. L.: [illegible] Incidence of Allergy to Rhinologic Practice Arch. Otolaryng. 20:804, 1934.
4. Hansel, H. K.: Allergy of the Nose and Paranasal Sinuses, pp 423.
5. Kern, R. A., and Schenck, H. P.: The Diagnosis and Treatment of Mucous Nasal Polyps, with consideration of the Allergic Factor. Med. Clin. N. Amer., 22:1633, 1938.
6. Arbuckle, M. F.; End Results of External Operations on the Frontal, Ethmoid and Sphenoid Sinuses, Arch. Otolaryn. 30:736, 1939.
7. Woodward, F. D., and Swineford, O.: Allergic Rhinitis etc. Arch. Otolaryn. 34:1123, 1941.
8. Hansel, F. K.: Allergy of the Nose and Paranasal Sinuses, pp 422.
9. Jones, E. H.: Allergic Rhinitis, South. Med. Jour. 32:647, 1939.
10. Hansel, F. K.: Allergy of the Nose and Paranasal Sinuses, pp 415.

There is still much ahead in the control of tuberculosis. Mortality reports may give the number who die, but it is also necessary that contacts be ascertained to find others who need medical care or to locate sources of infection who must be kept apart from the well. In 1943, only 33 per cent of the deaths from tuberculosis in Indiana were reported before the death certificate was recorded. Many of these were undoubtedly properly diagnosed and under care for some time, yet there were also many whose disease was not recognized until too late.

Roseola Infantum

J. L. Rubel, M. D.
Columbus, Miss.

Roseola infantum is a specific disease, almost exclusive in infancy, characterized by unexplained fever and later the appearance of an exanthem.

Numerous terms have been used in the past to describe this condition, namely, roseola infantum, exanthem subitum, exanthem criticum, pseudo rubella, sixth disease and rose rash of infants, the more common in current usage being roseola infantum and exanthem subitum.

It was first described in 1910 by Zahorsky and again in 1913 by Veeder, Hempelman, Levy and Westcott in 1921. Veeder and Hempelman first comprehensively described the hematological changes so characteristic of infantile roseola.

The disease is both widespread and common, having been reported all over this continent and in foreign countries. From this report on observations on thirty-two proved cases in private practice, it may be seen that the illness does not exclude the South in its distribution.

Most cases occur in the spring and autumn months, but sporadic cases may develop throughout the year. Both sexes are about equally susceptible.

Age is a very important predisposing factor. One hundred per cent of my admittedly small series of cases were below the age of eighteen months and it may be safely said that above 95 per cent of cases occur before two years of age. Cases of seven, nine and even fourteen years have appeared in the literature but these are extremely uncommon.

The etiology is unknown; since the disease is never fatal, no pathological series of cases have been described. Most students of the disease feel that it is a virus infection but isolated cases are the rule; isolated epidemics in institutions have been reported. The disease may be said to be mildly contagious and therefore infectious.

Symptomatology may be quite varied in this age group of patients but fever and rash are always present in the course of the disease. The disease is usually ushered in by the onset of sudden fever, the infant having been quite well and cheerful. This fever continues, usually typhoidal and occasionally intermittent in type, for two to five days, after which it falls by lysis or crisis, the exanthem soon appearing . This is the classical description of roseola infantum. The fever usually runs from 100.5° to 104° F., but may be normal at times during the febrile course or even 108° F. when febrile convulsions ensue. As the fever continues, the infant usually becomes drowsy, is quite irritable, refuses food, usually sleeps a great deal and either stays to his bed or wants to be held continually. Sleepless nights are the rule when the fever climbs and convulsions and resultant stupor may occur. Vomiting and diarrhea may be present.

Physical examination in the first twenty-four to thirty-six hours of the disease reveals nothing. The baby is quite ill and the only positive finding is fever. Recourse to the laboratory on this or third day may throw light on the condition. Urine, spinal fluid, blood culture, blood agglutinations and stool cultures are quite negative, but usually there is a leucopenia which in one case was as low as 2,000. Usual figures are 3,500 to 6,000. Coupled with this leucopenia, there is a lymphocytosis which may be extreme and in several cases was found to be above 90 per cent. This leucopenia and lymphocytosis is quite characteristic of the disease when present.

As the illness progresses, the cervical lymph nodes may enlarge slightly and a few cases show a very mild pharyngitis, tonsillitis, catharrhal otitis media and injected conjunctivae. A cough may be present but is never severe. Recently attention has been called to erythematous dots and streaks on the soft palate which, when present, are said to be pathognomonic of the disease. Many cases occur during the season of coryza, which may be present and confuse the diagnosis.

The final and completely diagnostic phase of the disease is the eruption, which comes usually as the temperature falls to normal, but which may be delayed as long as twelve to twenty-four hours. Patients are rarely seen in whom the fever extends for eight to twenty-four hours after the appearance of

(Continued to page 592)

---

*Read before the joint meeting the Northeast Mississippi and North Mississippi medical societies, University, Miss., March 12, 1946.

The Mississippi Doctor

Published monthly at Booneville, Mississippi. Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D. .... Editor-in-Chief
MILDRED P. ANDERSON .... Assistant Editor

David E. Guyton, Blue Mountain College ...... Poet

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.

A. F. Cooper, M. D. .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

E. M. Holder, M. D. C. R. Crutchfield, M. D.
F. M. Acree, M. D. H. King Wade, M. D.

Lawrence W. Long, M.D.
J G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississiippi.

LEGISLATURE APPROVES MEDICAL SCHOOL

Enabling acts for a four-year medical school in Mississippi have passed both houses of our legislature. It is thought that appropriation of funds will be made to make the school a reality at a reasonably early date and along with the school we trust we may have a system of affiliated hospitals that will be a great means in giving the very best medical service to our people that is offered in this nation.

It seems now that Mississippi is on the way with the best medical service system of any state in the union. It is true that we have quite a distance to travel, but the way is open. We have the green sign. The four-year medical school must go hand in hand with our affiliated hospital system if our state is to be set apart in leadership for medical service. Mississippi took the lead for the masses when she established the per capita distribution plan for the indigent sick. This amount has now been increased and the pay per day to the hospital has increased from $2.50 per day to $4.00 as we encouraged in the beginning.

We must train young interns and nurses in part at least in the smaller hospitals of the state if we are to have doctors and graduate nurses who will remain in Mississippi and know how and will be willing to render service.

If Mississippi now lives up to her opportunities she will be a beacon light in medical service for our state, for our nation and the nations of the earth. Let us catch the vision, let us have the courage, let us work in a brotherly fashion to meet a great challenge, that of carrying the best in medicine to all the people. The will of the medical profession should be that none shall perish, but that all shall have service that gives and prolongs human life.

THE STATE MEETING

Get your reservation now for your state meeting at the Robert E. Lee Hotel in Jackson, beginning May 14. Let us make this meeting one of our best. Dr. Crawford of Tylertown is president and Dr. Avent of Grenada is president-elect.

May is just around the corner. Make your plans now to attend the meeting. Let us make it a good one.

NEW ORLEANS GRADUATE ASSEMBLY

During the "duration" the doctors of New Orleans had the vision to keep their Graduate Medical Assebly going right along. They had the ingenuity to secure rooms for the doctors who wished to attend. The medical schools of New Orleans have done much also to keep medical information in liquid form and flowing along without being rationed or hampered. New Orleans is a great medical center; it has been for years and it is growing at a rapid rate. America's most interesting city, it also has friendly people and a cosmopolitan air. The Assembly this year was extraordinarily fine.

Congratulations to the progressive spirit of New Orleans medicine.

GROUPS CONSOLIDATE

The first quarterly meeting of the Northeast Mississippi Thirteen Counties Medical Society was held in conjunction with the North Mississippi Six County Society on the Ole Miss campus on March 12. Dr. Whitaker, president of the North Mississippi Six-County Society, presided over the meeting. Dr. J. Rice Williams was absent to the deep regret of all. Members of both societies seem to be a hundred per cent in favor of consolidation. The only question raised was of the meeting place. For the benefit of the medical school at Ole Miss, it was decided to have two of the four meetings at Ole Miss. This would hold as long as we have a medical school there, or least this seemed to be the idea. The meetings at Ole Miss will be of mutual benefit to the doctors and the students. The June meeting of the combined societies will be held in Booneville. A large attendance will be expected.

The scientific program at Ole Miss was mighty good. Dr. J. L. Rubel of Columbus read his first paper before the society, we believe, and it was a good one, the subject being, Roseola Infantum.

The Southeastern Surgical Congress in Memphis in March was a fine meeting. The papers were good, the fellowship fine, the interest excellent, the attendance limited only by the hotel accomodations.

We are very grateful for renewals of subscriptions to the *Mississippi Doctor* by doctors from the Mid-South. There are no finer doctors in the world than those of the Mid-South. It is good to have them as loyal friends.

Plans are now under way to have the annual session of the Mid-South Postgraduate Medical Assembly next February we understand. We are not sure of the exact date, but we think it opens about the thirteenth. The Mid-South has served a fine purpose in the past and it should render a still greater service in the future. Its purpose is to give the busy doctor a brief review of surgery and medicine in a four-day course.

News and Comment

BLOOD PLASMA AVAILABLE FOR CIVILIANS

Termination of both the European and Pacific wars earlier than was anticipated has made it possible for the American Red Cross to redirect to civilian use much of the dried blood plasma stock collected and processed for Army and Navy use. The Red Cross has on hand an estimated two years' supply of this valuable product which it will release for use in civilian medicine.

A plan has been worked out for channeling the blood plasma surplus to civilian use. It has the approval of the American Medical Association, the American Hospital Association, and the Association of State and Territorial Health Officers.

The plan provides for distribution through state boards of health and county health departments to hospitals and private physicians. Hospitals and physicians in counties with full-time county health departments will secure their plasma needs from the local health department. In counties where there is no full-time health service, requests may be made directly with the Division of Preventable Disease Control, Mississippi State Board of Health, Jackson, Mississippi. County health departments will keep their supply replenished from the reserve stock placed in the State Board of Health.

It is suggested that physicians keep one package on hand at all times and replace it with another package as soon as used. Hospitals also should endeavor to maintain an adequate supply, remembering that stocks can be replenished as needed.

The plasma is to be made available to all patients needing it regardless of ability to pay, but **no charge can be made for the plasma itself.**

Each package contains two cans, one of which contains sterile, distilled water and the other the plasma. Instructions for combining the components are on the cans.

Blood plasma is useful in many conditions. Possibly the best known are:

Shock

1. Traumatic, with hemorrhage or without hemorrhage. Excessive bleeding at childbirth, etc.
2. Operative.

Hypotroteinemia

1. Prolonged anorexia and prolonged starvation.

2. Conditions causing loss of serum such as burns, oozing wounds, serious cavities becoming filled with serum such as peritoneal irritation.

Excessive diarrheas.

There are other indications for the use of plasma but on the whole it is helpful in most conditions in which transfusion of whole blood is needed and where whole blood is not available at all or there is a delay in securing it. Physicians who desire more knowledge on the use of plasma may obtain considerable help from the books and journals on file in the State Board of Health Medical Library, where reference and loan service is available for the asking.

In order to give the American Red Cross an idea of the extent of the use of this plasma and the conditions for which it is used, it is required that each physician and hospital fill out a brief report which comes with each package and turn it in to the local health department (or the State Board of Health where is no full-time local health department). The report on each package used will enable the physician or hospital to obtain replacement packages as needed.

The Mississippi State Board of Health and the local health departments are glad to help the Red Cross in making this valuable product available and hopes that much benefit and saving of life will accrue to patients through its use.

ROSEOLA INFANTUM

(Continued from page 589)

the rash. It is rubelliform in type. It appears suddenly and usually simultaneously over the trunk, extremities, neck and face. It sometimes appears only on the trunk and often is more intense there. Less commonly, the face, soles and scalp are involved. The typical lesions are small rose-red macules, two to three millimeters in diameter, circular, not raised or only slightly elevated which fade on pressure. The rash is identical with the rash of rubella (German measles). They may be quite sparse, only ten to twenty spots being present, or so numerous and coalescent that huge erythematous blotches may appear on the back, abdomen or neck. The region about the cheeks and nose is usually free from the eruption. The rash lasts twenty-four to forty-eight hours and then disappears, the leucopenia rapidly returning to normal. Complications are quite rare. Encephalitis with recovery has been reported. Complications of a co-existing coryza may occur.

Some complications are man-made and avoidable. They include myringotomies unnecsarily, without release of pus or abating fever and the use of sulfonamides with resultant oliguria, albumin renal blockage and hematological changes well known to all.

Prognosis is excellent. There is no known specific therapy. Both sulfonamides and anti-biotics exert no influence on membrane. Treatment consists of purely symptomatic measures. Needless isolation and quarantine may be avoided if the disease is kept in mind and recognized.

The disease must be differentiated from measles, rubella, scarlet fever, influenza, smallpox, typhoid fever, dengue fever and sulfonamide rashes.

Measles presents much more the symptoms of coryza Koplik spots and a more intense rash with continued fever after the rash appears. A much less lymphocytosis is usually present in measles.

German measles does not usually have an extremely high fever as roseola infantum may have, and the rash of roseola infantum as before mentioned does not involve the cheeks and nose, which is almost always in rubella.

In scarlet fever, the rash is much smaller and punctate Pastia's lines may be present, the tonsils are usually fiery red and hemolytic streptococci may be found on culture. A leucocytosis with a shift to the left is invariably found.

In epidemics of smallpox the prodromal signs may be similar to infantile roseola but palpation of the lesion and the leucocytosis should help in differentiating.

The rash of infantile roseola may be indistinguishable from a sulfonamide rash. Here the history should be informative.

The fever of dengue fever usually lasts longer and the patient is far more uncomfortable than in roseola infantum.

Roseola infantum is interesting chiefly from a diagnosis standpoint, since no cure is known and as the disease is self-limiting.

BIBLIOGRAPHY

Zahorsky, J.—Roseola Infantum, Breenneman's Practice of Pediatrics 2:21:1.

Dickey, L. B.—Rose Rash of Infancy—Stanford Medical Bulletin, 3:37, 1945.

Clemens, H. H.—Exanthem Subitum (Roseola Infantum) Journal of Pediatrics, 26:66, January, 1945.

Barenburg, L. H., and reenspan, L.—Exanthem Subitum (Roseola Infantum), American Journal Diseases of Children, 58:983, November, 1939.

Moore, O. M.—Roseola Infantu, Journal Lancet, 656::243, July, 1945.

Rudolph, C. C.—Exanthem Subitum (Roseola Infantum), Journal of Florida Medical Association, 25:547, May, 1941.

Jones, B. B.—Exanthem Subitum, Virginia Medical Monthly, 66:401, July, 1939.

Stafford, G. E.—Exanthem Subitum, Archives of Pediatrics, 56:246, April, 1939.

NEW GOVERNOR

Dr. Robert E. Schwartz, Hattiesburg, was elected Governor of the American College of Chest Physicians for the state of Mississippi to succeed Dr. John S. Harter, formerly of the State Sanatorium, who has removed to Louisville, Kentucky. Dr. Harter is now chief thoracic surgeon at the Hazelwood Sanatorium, Louisville, Kentucky.

RETURNED FROM MILITARY SERVICE

Dr. R. W. Hall, Jr., Jackson
Dr. J. E. Wadlington, Florence
Dr. R. M. Flynt, Meridian
Dr. R. J. Moorhead, Yazoo City
Dr. J. C. Green, Tupelo
Dr. D. T. Wilson, Louisville
Dr. N. O. Tyrone, Prentiss
Dr. K. D. Terrell, Prentiss
Dr. W. K. Stowers, Natchez.
Dr. Frank A. Wood, Jackson
Dr. H. F. Garrison, Jr., Jackson
Dr. J. A. Chustz, Jackson
Dr. S. G. Mounger, Greenwood
Dr. W. E. Sheffield, Charleston
Dr. C. T. Berry, Greenwood
Dr. M. E. Johnson, Meridian.
Dr. J. C. McGuire, Hazlehurst
Dr. B. F. Floyd, Jr., Bay St. Louis
Dr. L. P. Crull, Jackson
Dr. Fred Geisenberger, Natchez
Dr. R. H. Pegram, Tupelo
Dr. T. G. Ross, Jackson
Dr. W. M. Kirk, Sardis
Dr. John H. Dent, Collins
Dr. F. B. Hays, Grenada

MISSISSIPPI PHYSICIANS WHO DIED DURING 1945

John Thomas Barry, Caswell, 78.
Charles H. Wheeler (ocl.), Okolona, 66.
Harey John Flowers, Kilmichael, 73.
T. W. Kemmerer, Jackson, 68.
Marvin A. Cowden, Shannon, 66.
H. R. Miller, Winterville, 74.
R. A. Switzer, McHenry, 69.
W. H. Cooper, Catchings, 68.
Charles M. Davis, Laurel, 76.
Claude E. Boyd, Amory, 64.
S. E. Dunlap, Wiggins, 66.
Walter Frank Coleman, Hickory Flat, 60.
Samuel H. Howard, Durant, 82.
Charles Walter Patterson, Crowder, 71.
John W. Primrose, Clarksdale, 64.
James E. Anderson, Fearns Springs, 60.
M. E. Arrington, Vaiden, 40.
W. B. Maxwell, Nesbitt, 93.
A. W. Dumas (col.), Natchez, 69.
Y. E. Gordon, Bucatunna, 85.
B. E. Vowell, Carthage, 52.
H. S. Goodman, Cary, 71.
W. A. Williamson, Duffee, 75.
C. M. Speck, New Albany, 58.
W. A. Toomer, Tupelo, 61.
John E. Davis, Columbus, 78.
Andrew Patterson McArthur, Moss Point, 73.
Charles F. Hester, Newton, 65.
Lewis C. Jones, Madison, 84.

ANNOUNCEMENT

Harvey F. Garrison, Jr., M.D., F. A. A. P., announces his release from the Army and resumption of the practice of pediatrics with The Children's Clinic, 409 Lamar Life Building, 315 E. Capitol Street, Jackson 2, Mississippi. He is a diplomate of the American Board of Pediatrics.

CLINICAL CONGRESS OF AMERICAN COLLEGE OF SURGEONS

The American College of Surgeons announces that arrangements have been completed for the holding of its thirty-second Clinical Congress at the Waldorf-Astoria, New York, September 9 to 13, inclusive.

This will be the first Clinical Congress since the meeting in Boston in 1941. Since that time, 2,744 surgeons have been received into fellowship in absentia, and to them in particular the convocation on the opening night of Congress will be a long anticipated event.

Dr. W. Edward Gallie of Toronto has been president since November, 1941. Dr. Gallie will give the Presidential Address on the evening of September 9 in the grand ballroom of Waldorf-Astoria.

AMERICAN COLLEGE OF CHEST PHYSICIANS

The next oral and written examinations for fellowship in the American College of Chest Physicians will be held at San Francisco on June 29, 1946. Applicants for fellowship in the College who plan on taking the examination should communicate with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn St., Chicago 10, Illinois.

The Twelfth Annual Meeting of the College is scheduled to be held at the Sir Francis Drake Hotel, San Francisco, June 29-30, July 1-2.

CATALOG

A new catalog of technical books has just been issued by the Chemical Publishing Co., Inc., 26 Court Street, Brooklyn 2, N. Y. This catalog includes the latest books on chemistry, physics, science, technology, medicine, foods, formularies, drugs and cosmetics, engineering, metals, technical dictionaries, building construction, etc.

A copy of this catalog will be sent free to everyone who is interested in keeping up with the latest technical and scientific progress.

WANTED—LOCATION TO PRACTICE

Doctor, twenty-six years of age, native Mississippian, married, graduate of the University of Tennessee College of Medicine with one year of rotating internship at a charity hospital and two years of service in the Navy Medical Corps. Desires associated practice with older doctor in Mississippi with clinical and hospital facilities available.

References furnished.

Write: Lt. Fred C. Wallace, MC, USNR, U. S. Navy Personnel Separation Center, NATTC, Bldg 58, Memphis, Tennessee.

ERROR

We are very sorry that through an error in our office statements for the journal were sent to many paid up subscribers in Mississippi. We had new office help who failed to understand this.

AMERICAN PUBLIC HEALTH ASSOCIATION

The Executive Board of the American Public Health Association announces the seventy-fourth annual meeting of the Association to be held in Cleveland, Ohio, the week of November 11, 1946.

THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the school-child—especially calcium, iron and the vitamin B complex. The ease with which Pablum (or Pabena) can be prepared enlists the mother's coöperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of the desired temperature.

Tuberculosis is intimately linked with nutrition, both because the disease is common under famine conditions, and because an individual's lowered resistance is connected with appetite disorders, and wrong dietetic habits. One-third of tuberculous people cannot obtain a proper diet on account of inadequate income. Better nutrition for all will enable the community to shoulder the burden of its tuberculosis, and gradually diminish the weight of that load. —NAPT Bulletin, England, June 1945.

Industrial x-ray programs are likely to play a major role in tuberculosis control during the next decade. —Editorial, Am. Jour. P. H., Nov., 1945.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—James G. Thompson, Jackson.

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—J. F. Lucas, Greenwood.

Orthopedics—Thomas H. Blake, Jackson.

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—Karl O. Stingily, Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

PEDIATRICS

CAUSES OF PREMATURITY—INFLUENCE OF MATERNAL ILLNESS ON THE INCIDENCE OF PREMATURITY; EMPLOYMENT OF A NEW CRITERION OF PREREMATURITY FOR THE NEGRO RACE AND INFLUENCE OF SYPHILIS ON THE INCIDENCE OF OF PREMATURITY FOR THE NEGRO RACE AND A. Lyon, M.D. and Nina A. Anderson, M.D.—November-December, 1945, American Journal of Diseases of Children.

The authors observe that wnen birth weight is used as the standard by which the maturity of an infant is determined, it should be remembered that there are racial differences in average birth weight. If the same standard is used for the two races, an apparent difference is observed in the incidence of premature births in the white and the Negro races. This difference is statistically significant and is true of the births to normal mothers and also to those mothers whose pregnancy has been complicated by some illness or abnormality. It appears that more premature infants are born to Negro women than to white women.

If, however, an arbitrary correction is made to allow for the fact that Negro infants on the average weigh less at birth than do white infants, this apparent difference disappears and the incidence of premature birth in the two races is seen to be very similar.

In this summary and conclusions the authors say:

"I. The incidence of prematurity among the offspring of white women who were entirely free from serious infections or other abnormalities during pregnancy was 5.5 per cent. The rate rose to 13.5 per cent among the infants whose mothers had some illness during pregnancy.

"2. The incidence of prematurity among the offspring of Negro women was higher, the respective percentages being 9.2 and 116.6. When the criterion of prematurity for Negro infants was adjusted to make their stage of maturity more comparable to that of white infants, these racial differences of incidence disappeared. From our data the lowering of the upper limit of birth weight from prematurity of the Negro infants from 5 pounds 8 ounces (2,500 Gm.) to 5 pounds 3 ounces (2,350 Gm.) seemed to justify.

"With such a classification, the percentage of premature delivery was 5.7 for Negro women with normal pregnancies, as compared with 5.5 for the women of the white race. Among the Negro mothers whose pregnancies were complicated by some illness, the percentage of premature delivery was 12.5 as compared with 13.5 among the white mothers.

"3. Approximately 80 per cent of the stillborn infants of both races were the offspring of mothers who had had some illness during pregnancy. The majority of stillborn infants were prematurely born (whether or not the mother was in good health during pregnancy.)

"4. Maternal illness appears to be associated, either directly or indirectly, with about 65 per cent of single live-born premature infants and with 80 per cent of stillborn infants.

"5. The relative importance of various illnesses and abnormalities as single predisposing etiologic factors will be the subject of further investigation."

The authors on the same subject which deals with the influence of syphilis on the incidence of prematurity have this to say:

"I Prematurity was somewhat more frequently characteristic of the offspring of syphilitic women than of the infants of nonsyphilitic women. For the white race the respective percentages were 14 and 9. For the Negro race they were 17 and 12 per cent but when the standard of prematurity was adjusted to include as premature only the Negro infants weighing less than 5 pounds 3 ounces (2,300 Gm.) the rates of prematurity were approximately the same as for the white race; namely, 13 and 9 per cent.

"2. The influence of maternal syphilis on the prematurity rate was evaluated more precisely by comparing the group of women who had no detectable illness during pregnancy with the group of mothers whose only abnormality was syphilis. Prematurity was noted for five per cent of the white mothers who has normal pregnancies and for ten per cent of those with syphilis only. Among the Negroes, the respective rates were 9 and 13 per cent, but with the adjusted standard of prematurity, the rates among Negroes became 6 and 10 per cent, which is almost identical with the rates observed among the white patients.

"3. When the live-born infants were considered as a separate division (omitting the stillborn), the prematurity rate in the white race was slightly but not significantly elevated by the occurrence of maternal syphilis. In the Negro race the difference observed was of statistical significance. Prematurity rates among stillborn infants were not significantly altered by the presence of maternal syphilis. Differences of the same magnitude were noted when the group of mothers who had normal pregnancies was compared with the group of those who had syphilis only.

"4. There was a higher incidence of syphilis in the Negro women than in the white. Such a finding has frequently been interpreted to mean that syphilis causes a higher rate of premature delivery for Negro women. Our observations indicate that the incidence of prematurity among syphilitic women was approximately the same for the two races.

"5. Specific therapy administered to syphilitic patients during pregnancy had pronounced effects in reducing the rate of prematurity. Among white mothers whose only illness during pregnancy was syphilis, therapy was associated with a drop in prematurity rates from 16 to 1-0 per cent. Among Negro mothers the rates fell from 23 to 6 per cent.

"6. When diseases or abnormal conditions other than uterine bleeding were associated with syphilis during pregnancy, the prematurity rates were slightly but not significantly elevated above those of groups in which syphilis occurred alone. The association of syphilis and conditions producing uterine bleeding resulted in a pronounced increase in the incidence of premature delivery."

COMMENTS

On account of the extensive investigation and study on the causes of prematurity in a great number of cases studied by these authors, I thought it would be interesting to the medical profession of our state for them to have the opportunity to review the two papers by the same authors in the November-December issue of the American Journal of Diseases of Children which is just off the press.

Since Mississippi has such a very large Negro population the findings in this case are quite interesting. It is very timely since it is well known by the members of the medical profession of our state that prematurity is the leading cause of infant mortality which I regret to admit is too great in our state.

DERMATOLOGY

Volume 52—Number 5
November-December, 1945
Pages No. 405 and 406

CHILD: DEMONSTRATION OF VIRUS AND COMMENT ON "*KAPOSI'S* VARICELLIFORM ERUPTION."

Falls B. Hershey and William E. Smith, Am. Child. 69.33 (Jan.) 1945.

In this communication from the department of pediatrics and of pathology of the Massachusetts General Hospital, a case is reported of generalized vaccinia occurring in an eczematous child after exposure to a recently vaccinated brother. The vaccine virus was recovered from the cutaneous lesions, and antibodies against this virus were demonstrated in the serum of the patient. The cutaneous lesions of the vaccinia developed almost exclusively in the eczematous areas.

Recently, agents closely resembling herpes simplex virus have been recovered from similar eruptions known as Kaposi's varicelliform eruption or pustulosis arioliformis acuta. Since these eruptions occur in patients with eczema, they were formerly considered to be identical with eczema vaccinatum. However, a considerable number of patients have failed to yield either vaccinia or herpes virus despite appropriate tests. The suggestion is made that this may be due to other viruses localizing in the eczematous areas.

THE CHEMOTHERAPY OF SYPHILIS. Joseph E. Moore, Am. J. Syph., Gonor. & Ven. Dis. 29:185 (March), 1945.

This is an excellent article which reviews the chemo-therapy of syphilis from the first appearance of the disease in Europe, in 1943, until October, 1945. The last half of the article is devoted to the use of penicillin in treatment of syphilis, but since the picture regarding penicillin is changing so rapidly, details regarding its use are omitted from this abstract, except the statement that penicillin is new and powerful addition to syphilotherapy.

Syphilis: Review of the Recent Literature. E. Gurney Clark, Joseph Earle Moore, Charles F. Mohr, Virgill Scott and Richard D. Hahn, Arch. Int Med. 74:390 (Nov.), 1944.

Mohr and his associates have again provided an extensive, thorough and critical review of literature pertinent to syphilis. The present review covers the period from July, 1943, to July, 1944, and is divided into sections relating to various laboratory, public health, therapeutic and clinical phases of the disease.

There is need for greater recognition of the problem of the recovery of the aged. Many are of the chronic type, able to be about, and therefore more dangerous because of the potentialities of spreading infection to others, particularly young children. Tuberculosis mortality rates are falling, but in general the percentage reduction is much higher in the younger groups than among those of older age. Murray A. Auerbach, Bulletin, Indiana State Bd. of Health, Nov., 1945.

State Board of Health

Felix J. Underwood, M.D.

MEETING THE EXTRA HEMOGLOBIN NEEDS OF EXPECTANT MOTHERS

VIRGINIA HOWARD, M.D., M.P.H., Director
Division of Maternal and Child Health

It is estimated that approximately 43 per cent of women in the childbearing age in the South have hemoglobin values lower than 80 per cent. Hence the physician is concerned with the problem of meeting the extra hemoglobin needs of expectant mothers in more than one-third of his maternity cases. These lowered values among women are due in great part to the low protein and iron intakes of their diets prior to pregnancy.

A recent nutrition study in Tennessee revealed that 599 per cent white adults had low intakes of iron and that 51 per cent had low intakes of protein. When a physician considers the fact that during pregnancy there is a 30 per cent increase in the need for protein and a 25 per cent increase in the need for iron, the importance of meeting these needs of the expectant mothers under his care becomes apparent.

Iron has always been considered a keynote for hemoglobin construction, but frequently one fails to realize that with a diet adequate in iron and low in protein, hemoglobin regeneration is still minimal. The hemoglobin molecule is composed of 96 per cent protein and only 4 per cent is an iron-containing pigment called **heme.** The normal adult woman needs an intake of 60 grams of protein and 12 grams of iron. Translated into an average diet this means:

Intake of 660 Grams Protein

1 pint of milk	16.6 gms.
1 egg	6.2 gms.
3½ oz. meat	24. gms.

(The remaining 13 grams will be derived from other articles in the diet.)

Similarly, an intake of 12 mgm. of iron means:

1 egg	1.4 mgm.
3½ oz. meat	4.5 mgm.
1 serving greens	3.2 mgm.
4 slices of bread	2.0 mgm.

(The remaining .9 of a mgm. will be derived from other foods.)

An expectant mother's requirement for other foods.)

An expectant mother's requirement for iron is 15 mgm. and for protein is 85 grams. In order to add approximately 25 grams of protein and 3 mgm. of iron to the diet it is necessary that the expectant mother utilize daily the equivalent of the following foods:

1 extra pint of milk	16.6 grams
1 serving of dry beans	6.4 grams
(for protein)	
1 extra serving of greens	3.2 mgm.
(for iron)	

It should be remembered that an excellent diet during pregnancy can not compensate for lowered hemoglobin values present when the woman became pregnant. In a food intake of 15 mgm. of iron a day the expectant mother absorbs only 1 mgm. A good diet will raise the hemoglobin of an expectant mother approximately only 1 per cent a month.

With an adequate iron therapy, of which ferrous sulphate in 5-grain doses four times a day still seems to be the best and cheapest, the hemoglobin, provided the daily protein needs are met, will increase approximately 1 per cent a day.

In studying the dietary intakes among expectant mothers in Mississippi, it is not uncommon to encounter diets containing only 30 to 40 grams of protein a day and 4 to 6 mgm. of iron daily. One of the most frequent reasons for a low protein intake is the unwillingness of the expectant mothers to consume the quart of milk daily which their physicians routinely advise. Milk has always been stressed as a source of calcium. In addition it should be pointed ou that it offers in protein content the equivalent of one and one-half servings of meat. The substitution of calcium tablets leaves this protein requirement unmet, and similarly fails to supply the 80 per cent riboflavin intake met by the expectant mother's daily consumption of a quart of milk.

In 1944 in Mississippi there were 45 maternal deaths due to hemorrhage. Many mothers were incapacitated for long periods of time as a result of lowered hemoglobin values. This might have been prevented through careful hemoglobin determinations during pregnancy and during the postpartum period. A simple and accurate method for hemoglobin determination is that of Phillips. Physicians interested in the Phillips' technic and in a suitable pamphlet of instructions for expectant mothers relating to dietary problems may write to the Division of Maternal and Child Health, Mississippi State Board of Health, Jackson 113, Mississippi, for a free copy of each.

Maternal and infant mortality rates have been steadily declined in the past quarter of a century as a result of improved public health, medical and hospital facilities. However, there still remains a large gap in knowledge known and knowledge applied. Physicians and public health workers can be counted upon to do everything they can to bridge this gap and thus save lives and build stronger, healthier Mississippians.

CANCER MEETING

On February 26 at Vicksburg there was held the first District meeting of the Mississippi Division of the American Cancer Society. Mrs. Elizabeth N. Wates, State Commander, reports that there was an excellent program and that the response from those in attendance was very enthusiastic. Among the speakers were Dr. Alton Ochsner of New Orleans, and Mrs. H. B. Ritchie, Regional Commander of the American Cancer Society, Atlanta.

Mississippi's county chairmen are making good progress in organizing the fight to control cancer and from their efforts the people of the State are developing a new sense of awareness that cancer can be prevented and that it can often be cured if a person will seek proper medical care in its early stages. The Society's slogan, "Fight Cancer With Knowledge," is beginning to make itself felt as workers strive in new earnest to present accurate facts regarding this disease to every section.

ADVANCES IN TREATING VENEREAL DISEASES

Improved methods of treating gonorrhea and syphilis will be the subject of a half-day refresher course for physicians of the State to be held at various points February 25 to March 20. Dr. Percy Pelouze of the Department of Urology, University of Pennsylvania

Medical School, well-known authority on the venereal diseases, will conduct the courses. Others taking part include Dr. H. Worley Kendell of the Mississippi State Fever Therapy Unit, Dr. Terrence Billings, Medical Director of the Delta Medical Center, and Dr. Wm. G. Hollister, Supervisor of Venereal Disease Control, Mississippi State Board of Health.

The courses have been organized for the convenience of the private physician to provide him with a fairly complete picture of recent developments in the effective treatment of gonorrhea and syphilis and at the same time to give him an opportunity to present problem cases or any questions regarding problems he might have. There will be no registration fee for the courses and it is designed to hold them at points which will permit the largest possible number of physicians to attend with a minimum loss of time from busy offices.

For further information or details, write to Dr. A. L. Gray, Director, Division of Preventable Disease Control, Mississippi State Board of Health, at Jackson, or make inquiry at your local health department.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	January 1946	January 1945	5-Year Average
Acute Poliomyelitis	7	2	2.6
Bacillary Dysentery	425	633	437.8
Dengue	0	0	0.0
Diphtheria	38	37	31.6
Influenza	20034	8728	14225.2
Measles	1176	485	1313.0
Meningococcus Meningitis	20	20	27.2
Other Forms Meningitis	2	3	5.0
Pellagra	138	156	170.2
Pneumonia	2568	2247	2597.6
Pulmonary Tuberculosis	150	132	122.6
Scarlet Fever	70	174	81.4
Smallpox	1	0	1.4
Tularemia	5	1	3.6
Typhoid Fever	5	5	3.6
Typhus Fever	4	12	5.4
Undulant Fever	1	8	2.2
Whooping Cough	360	546	632.6

Woman's Auxiliary

President	**Mrs. L. J. Clark**	**Vicksburg**
President-Elect	**Mrs. Stanley Hill**	**Corinth**
First Vice-President	**Mrs. H. C. Ricks**	**Jackson**
Second Vice-President	**Mrs. Henry Boswell**	**Sanatorium**
Third Vice-President	**Mrs. W. H. Anderson**	**Booneville**
Recording Secretary	**Mrs. Geo. W. Owens**	**Jackson**
Fourth Vice-President	**Mrs. Ben Walker**	**Jackson**
Treasurer	**Mrs. J. D. Simmons**	**Cleveland**
Historian	**Mrs. Harvey Garrison**	*Jackson*

CENTRAL MEDICAL AUXILIARY

Mrs. W. F. Hand was elected president of the Woman's Auxiliary to the Central Medical Society at the March meeting in the home of Mrs. J. P. Wall, 747 Belhaven Street. Serving with Mrs. Hand will be Mrs. H. R. Shands, vice-president; Mrs. J. Gordon Dees, secretary; Mrs. W. C. Thompson, treasurer; Mrs. H. C. Ricks, parliamentarian; Mrs. T. W. Kemmerer, historian.

Mrs. G. E. Riley presided over the meeting which was opened with the reading of the collect for clubwomen by Mrs. George W. Owen.

Mrs. J. I. Wates, state commander of the Field Army of the American Cancer Society, was the guest speaker, being presented by Mrs. W. H. Waddle, Hinds County chairman. Mrs. Wates, in a short and informative talk, explained the purposes and aims of the society and urged the coöperation of the auxiliary.

Mrs. L. W. Long was appointed general chairman, and Mrs. H. C. Sheffield, co-chairman, for the state convention, to be held in May.

Doctors' Day Party will be held in April.

A rising vote of thanks was given the officers for their work during the past year.

Following the business session, members and guests were invited into the dining room, where the beautifully-appointed table held an arrangement of spring flowers, harmonizing with those in the living room.

Mrs. Riley and Mrs. Hand poured tea from the silver services. Dainty sandwiches, cakes and nuts were served by the following hostesses: Mrs. W. R. Beathea, Mrs. Harvey Garrison, Mrs. P. R. Greaves.

Mrs. J. E. McDill, Mrs. W. F. Hand, Mrs. H. C. Sheffield, Mrs. T. E. Wilson, Mrs. Temple Ainsworth and Mrs J. P. Wall.

Those present included: Mrs. G. E. Riley, Mrs. A. L. Gray, Mrs. J. Gordon Dees, Mrs. I. J. Waits, Mrs. W. H. Waddell, Mrs T. G. Ross, Mrs. T. Moore, Mrs. F. J. Underwood, Mrs. C. F. MacKenzi, Mrs. C. B. Mitchell, Mrs. N. B. Walker, Mrs. Robin Harris, Mrs. T. J. Blake, Mrs. L. W. Long, Mrs. Brister Ware, Mrs. Lauch Hughes, Mrs. L. T. Carl, Mrs. Van Dyke Hagaman, Mrs. I. C. Huggins, Mrs. Lee M. Lipscomb, Mrs. W. M. Dabney, Mrs. W. C. Thompson, Mrs. Boyd Edwards, Mrs. H. F. Magee, Mrs. W. H. Simmons, Mrs. J. A. Schustz, Mrs. J. A. Milne, Mrs. F. D. Hollowell, Mrs. R. C. O'Ferral, Mrs. T. E. Wilson, Mrs. J. E. McDill, Mrs E. H. Galloway, Mrs. O. A. Schmid, Mrs. W. F. Hand, Mrs George Owen, Mrs. J. C. Rude, Mrs. H. R. Shands, Mrs. Marion W. Murphy, Mrs. A. G. Wilde, Mrs. Temple Ainsworth, Mrs. P. R. Greaves, Mrs. H. C. Sheffield, Mrs. H. C. Ricks, Mrs. Harvey Garrison, Mrs. W. R. Bethea, and Mrs J. P. Wall.

TRI-COUNTY MEDICAL AUXILIARY

The first meeting of the Tri-County Medical Auxiliary for 1946 was held in the home of Mrs. R. C. Massengill, Brookhaven, on March 12, with the wives of the Brookhaven physicians as co-hostesses for luncheon. The unusual procedure of meeting in a lovely home, made even more lovely by beautiful arrangements of spring flowers, proved a most effective way for an organization to begin a new year. A double feature of the occasion was the presentation of the incoming president, Mrs. B. L. Crawford of Tylertown, and the guest speaker, our state president, Mrs. L. J. Clark, of Vicksburg. Each was presented a beautiful corsage.

The meeting was called to order by the retiring president, Mrs. W. H. Frizell of Brookhaven, who in turn introduced the new president, Mrs. B. L. Crawford. After greeting the members and guests, Mrs. Crawford asked Mrs. O. N. Arrington of Brookhaven, to return thanks before the delicious luncheon was served.

Following the luncheon, the minutes of the December meeting were read by the secretary-treasurer, Mrs. C. E. Mullins of Brookhaven before Mrs. Clark was introduced. After presenting the purpose and aims of the State Medical Auxiliary and familiarizing the members with publications related to the Auxiliary, Mrs. Clark highlighted her talk with a thought-provoking discussion of the Wagner-Mufray-Dingell bill. In this discussion Mrs. Clark gave a clear and concise explanation of the bill and its threat to the medical profession. She pled that each member of the Auxiliary avail herself of every opportunity to inform others of the true meaning of this bill and what it will do to our country and to American medicine. She urged that we contact our congressmen and senators immediately and vigorously protest against this strictly un-American political proposal.

Members and guests present included: Mrs. Thomas Burk, Mrs. James Blane, Mrs. Thomas F. McDonnell, Mrs. R. B. Zeller, Hazlehurst; Mrs. B. L. Crawford, Mrs. A. B. Harvey, Tylertown; Mrs. W. L. Little, Wesson; Mrs. O. N. Arrington, Mrs. Jack Atkinson, Mrs. W. H. Frizell, Mrs. H. R. Fairfax, Mrs. J. H. Lipsey, Mrs. J. R. Markette, Mrs. F. C. Massengill, Mrs. R. C. Massengill, Mrs. C. E. Mullins, Mrs. R. S. Savage, Brookhaven; and Mrs. J. S. Tobis of Jackson.

AUXILIARIES CONSOLIDATE

The members of the Northeast Mississippi Thirteen Counties Auxiliary and the North Mississippi Society met as one group at the University Center on the University of Mississippi campus March 12, and made plans for consolidation along with the doctors.

The ladies were welcomed by the doctors' wives of Oxford, Mrs. B. S. Guyton and Mrs. J. C. Culley being assisted by others of the town. Dr. W. A. Evans of Aberdeen was the guest speaker for the afternoon, making a delightful and provocative commentary on life.

Tea was served by the hostesses, climaxing entertaining readings by the expression instructor at Ole Miss.

The combined groups will meet in June in Booneville.

OFFICERS 1945-46

PRESIDENT

B. Lampton Crawford .... *Tylertown*

PRESIDENT-ELECT

J. K. Avent .... *Grenada*

VICE-PRESIDENTS

E. K. Guinn .... *Okolona*
J. T. Weeks .... *Jackson*
L. W. Brock .... *McComb*

HISTORIAN

J. G. Thompson .... *Jackson*

EDITOR

Lawrence W. Long .... *Jackson*

ASSOCIATE EDITORS

Stanley A. Hill (*One Year*) .... *Corinth*
L. Hughes (*Two Years*) .... *Jackson*

SPEAKER OF THE HOUSE

J. Rice Williams .... *Houston*

TREASURER

J. F. Lucas .... *Greenwood*

SECRETARY

T. M. Dye .... *Clarksdale*

COUNCIL

First District

J. W. Lucas .... *Moorhead*
Bolivar, Coahoma, Humphreys, LeFlore, Quitman, Sunflower, Tallahatchie, Tunica, Washington

Second District

L. L. Minor .... *Route 4, Memphis, Tenn.*
Benton, DeSoto, Lafayette, Marshall, Panola, Tate, Tippah, Union, Yalobusha

Third District

R. B. Caldwell .... *Baldwyn*
Alcorn, Calhoun, Chickasaw, Clay, Itawamba, Lee, Lowndes, Monroe, Noxubee, Oktibbeha Pontotoc, Prentiss, Tishomingo

Fourth District

W. H. Curry .... *Eupora*
Attala, Carroll, Choctaw, Grenada, Holmes Montgomery, Webster

Fifth District

H. C. Ricks .... *Jackson*
Claiborne, Hinds, Issaquena, Leake, Madison, Rankin, Scott, Sharkey, Simpson, Smith, Warren, Yazoo

Sixth District

Lamar Arrington .... *Meridian*
Clark, Kemper, Lauderdale, Newton, Neshoba, Winston

Seventh District

R. F. Ratliff .... *Lucedale*
Covington, Forrest, George, Green, Jasper, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Wayne

Eighth District

W. H. Frizell .... *Brookhaven*
Adams, Amite, Copiah, Franklin, Jefferson, Lawrence, Lincoln, Pike Walthall, Wilkinson

Ninth District

D. J. Williams .... *Gulfport*
Hancock, Harrison, Jackson, Stone

COMMITTEES

PUBLIC POLICY AND LEGISLATION

A. Street, (*One Year*) .... *Vicksburg*
Henry Boswell (*Two Years*) .... *Sanatorium*
W. H. Anderson (*Three Years*) .... *Booneville*

PUBLICATION

L. W. Long, *Editor* .... *Jackson*
Stanley A. Hill (*One Year*) .... *Corinth*
L. Hughes (*Two Years*) .... *Jackson*

PROGRAM

THE SECRETARY
CHAIRMEN OF SECTIONS

CONSTITUTION AND BY-LAWS

D. W. Jones (*One Year*) .... *Jackson*
W. W. Crawford (*Two Years*) .... *Hattiesburg*
W.H. Frizell (*Three Years*) .... *Jackson*

BUDGET AND FINANCE

Gilruth Darrington (*One Year*) .... *Yazoo City*
George Adkins (*Two Years*) .... *Jackson*
B. B. O'Mara (*Three Years*) .... *Biloxi*

EXHIBITS

D. W. Jones (*One Year*) .... *Jackson*
J. G. Thompson (*Two Years*) .... *Jackson*
George Riley (*Three Years*) .... *Jackson*

CHAIRMEN OF SECTIONS

MEDICINE

H. C. Sheffield .... *Jackson*

SURGERY

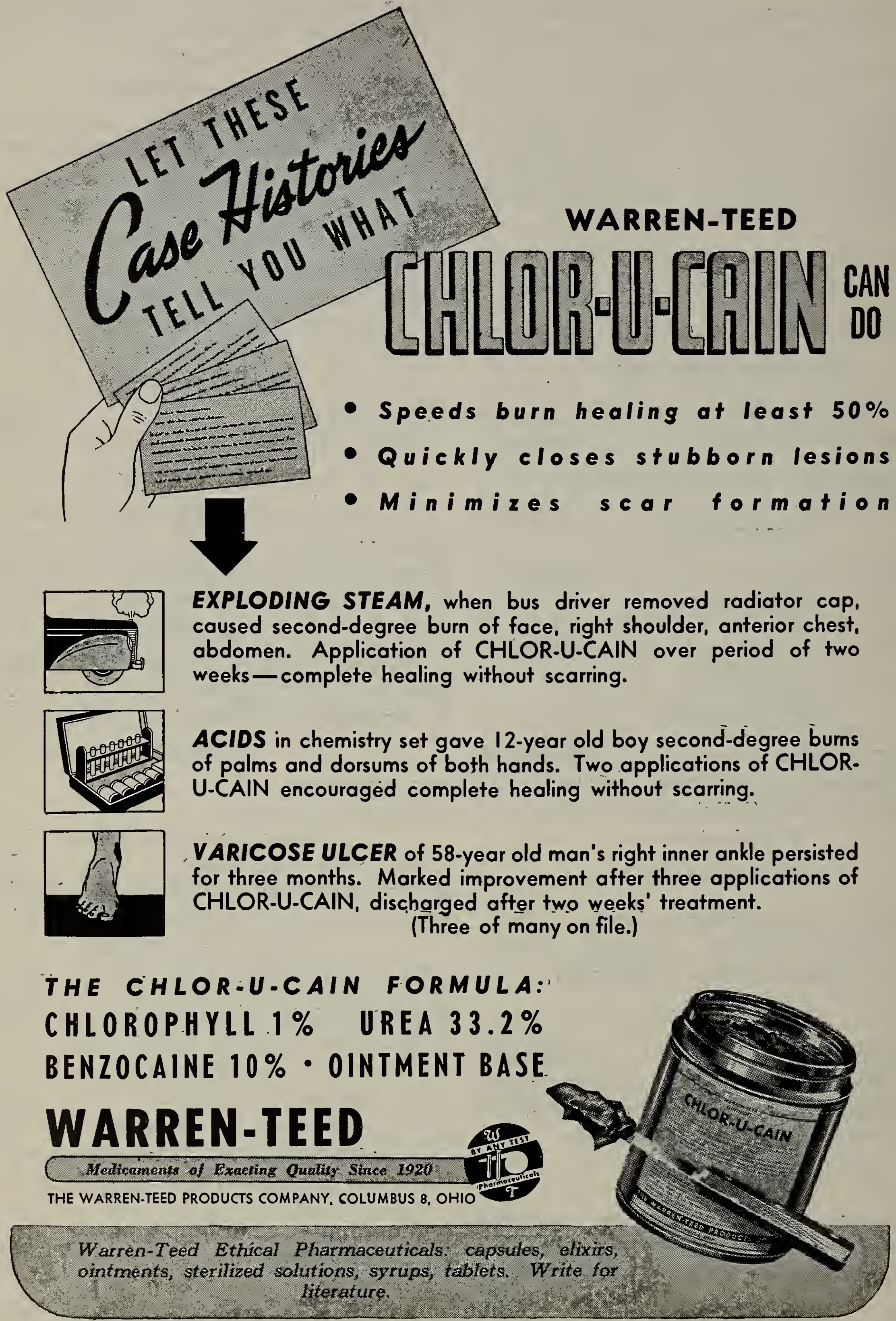
A. B. Harvey .... *Tylertown*

PUBLIC HEALTH

T. Paul Haney .... *Laurel*

EYE, EAR, NOSE AND THROAT

S. B. Caruthers .... *Grenada*



LET THESE *Case Histories* TELL YOU WHAT

WARREN-TEED
CHLOR-U-CAIN CAN DO

- *Speeds burn healing at least 50%*
- *Quickly closes stubborn lesions*
- *Minimizes scar formation*

EXPLODING STEAM, when bus driver removed radiator cap, caused second-degree burn of face, right shoulder, anterior chest, abdomen. Application of CHLOR-U-CAIN over period of two weeks—complete healing without scarring.

ACIDS in chemistry set gave 12-year old boy second-degree burns of palms and dorsums of both hands. Two applications of CHLOR-U-CAIN encouraged complete healing without scarring.

VARICOSE ULCER of 58-year old man's right inner ankle persisted for three months. Marked improvement after three applications of CHLOR-U-CAIN, discharged after two weeks' treatment.
(Three of many on file.)

THE CHLOR-U-CAIN FORMULA:
CHLOROPHYLL 1% UREA 33.2%
BENZOCAINE 10% · OINTMENT BASE

WARREN-TEED
Medicaments of Exacting Quality Since 1920
THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Uterine Bleeding–Organic and Functional; Diagnosis and Treatment*

GILBERT F. DOUGLAS, M.D., F.A.C.S.,
F.I.C.S.
Birmingham, Alabama

This is such a broad subject that we could spend days in discussing. For that reason, we are going to hit just the high points.

In uterine bleeding there are three major principles to keep in mind. I think if we can catalogue them in our minds it will make diagnosing a little easier.

Causes of Bleeding.

1. Functional. That type of bleeding which is not identified with any particular disease as far as we know.
2. Endocrine. Where there is a disturbance of the endocrine glands, with which you are familiar. That group has an internal secretion without external drainage.
3. Organic. As in malignancies or from definite diseases.

Another classification that it is well for us to keep in mind is the age classification. We have very few diseases which cause bleeding in childhood. They are embryonic tumors or granulosa cell tumors. Possibly all of us have seen one or two cases in which there was uterine bleeding in a very young child, three, four or seven years of age, which began very much like menses. This bleeding is not a true menstruation. Usually it is due to some stimulus from a disease of the ovary, which frequently is granulosa cell tumor.

The next age group is puberty. There are more points to be considered in this age classification than the younger group. You are familiar with the estrogenic type. This stimulation comes in the first half of the cycle due to estrogen formation. If there is no progestin formed in the second half of the cycle, bleeding will continue. In childhood this is often associated with absence of ovulation, where no progestin or corpus luteum is formed.

Next is the adolescent, which of course is the larger group. There are three classifications: 1) organic, 2) functional, 3) endocrine. You would expect to find all of these conditions in the adolescent group—tumors of the ovaries, pelvic inflammatory condition, constitutional diseases, etc., and malignancies. Malignancies have been placed last for emphasis, but in reality should be first.

MENOPAUSAL BLEEDING

1. Ovarian. This often comes along with ovarian deficiencies in the declining years of life.
2. In ovarian secretion with absence of ovulation—there is no corpus luteum formed—nothing to "put on the brakes."
3. Fibroma. Incidentally fibroma is not nearly as frequent a cause of bleeding as we formerly thought, unless there is a fibroid near the endometrium. There may be a number of them in the uterus without causing bleeding.
4. Constitutional diseases. Tuberculosis, cardiovascular diseases, nephritis, etc.
5. Ovarian tumors. Either large or small may cause a stimulation of estrogen to the endometrial lining.
6. Thyroid deficiency. Quite frequently this is associated with bleeding.
7. Endocrine. Thyroid, pituitary, ovarian, adrenal, etc.
8. Malignancies. This should be first. As Dr. Jones told us yesterday, "we expect 50 per cent of bleeding beyond the menopausal period to be from malignancy."

POSTMENOPAUSAL BLEEDING

1. Ovarian tumors, granulosa cell tumors, ovarian cysts, etc. In childhood the granulosa cell tumors are the cause of uterine bleeding in a few instances. In postmenopausal patients, granulosa cell tumors are occasionally in this group also. If a patient goes through the menopause at forty-five to forty-eight years of age, stops for fifteen years, and then begins to menstruate, frequently on checking there is nothing, like an ovarian tumor, about the cervix or uterus to account for the bleeding, so you would naturally suspect a granulosa cell tumor.
2. Tuberculosis or cervicitis may cause bleeding.
3. Carcinoma—placed last for emphasis, is one of the most frequent causes.

Abnormal uterine bleeding is a common

---

*Presented and discussed at postgraduate seminar on obstetrics and gynecology, Medical College of Alabama, Birmingham, Alabama, January 25, 1946.

**Dr. J. F. McDowell and Dr. T. B. Norton, Birmingham, Alabama, entered in round-table discussion with questions from the audience.

gynecological symptom, but it is only a symptom. NO BLEEDING WITHIN ITSELF IS A DISEASE. If you can think of it this way, it will serve as an incentive to start looking for the disease and you will not go astray.

Functional bleeding is not related to any particular disease.

In organic bleeding definite disease is found.

Endocrine bleeding denotes disease of the ovaries, pituitary, thyroid, etc.

Amenorrhea—absence of bleeding, primary or secondary.

Although we are discussing bleeders, associated with them we might think of the group of girls or older people with absence of bleeding. They can give you more concern than almost anything you will have to deal with in the first years of a girl's adolescent life. When a girl reaches puberty and has menstruated once or twice, then stops for a year or more, she becomes alarmed about it. Some advocate going on until the patient is eighteen or twenty years of age without doing anything about it. Personally, I do not think we should wait until the patient is twenty years of age to establish or re-establish menstruation, without making a correct diagnosis. If unable to establish menstruation before that age, it will probably not ever be established normally. She will have long periods of cessation and possibly sterility associated with it. By starting earlier it is easier to do something about it.

Metrorrhagia—bleeding between times. This is not necessarily associated with abnormal menstruation.

Cyclic bleeding. This may be normal and may be short or prolonged.

Absence of bleeding may be incidental to: 1) occurrence of true menstruation (associated with ovulation), 2) delayed menstruation, 3) pregnancy, 4) intercurrent disease, 5) intercurrent disturbance of function, 6) premature menopause, 7) menopause.

1. Estrogenic bleeding may occur from: 1) normal estrogenic endometrium. We will not take much time in this discussion to talk of the endometrium, but we do want to keep this one fact in mind: Where there is an endometrium or uterine bleeding that is not part of the cycle, there is often a disturbance either with the pituitary or with the thyroid gland. Some claim that anovulation bleeding is not true menstruation. 2) Hypoestrogenic endometrium. An insufficient amount of estrogen We think of theelin more than any other product as the preparation to give to supply estrogen deficiency 3) Hyperestrogen. Overstimulation of the endometrium.

2. Progestin bleeding may occur from: 1) A mass of cells not developed to the same degree as the other endometrium cells. This may be normal bleeding for that particular gland, which is out of gear with the other part of the endometrium. 2) Mass of cells in the endometrium—corpus luteum forms in the last half of the cycle. 3) Immature progestational endometrium. 4) Normal progestational endometrium. 5) Decidua-like progestational endometrium. (These two classifications may be combined in this manner). 6) Cyclic estrogenic bleeding. This may be scanty in amount and short in duration. 7) Cyclic progestation. This may be prolonged in duration and excessive in amount.

ETIOLOGICAL FACTORS ON NORMAL UTERINE BLEEDING

The etiological factors may be classified as follows:

1. Physiological alterations in uterine bleeding, including sexual immaturity, pregnancy, and the climacteric.
2. Gestational bleeding, including abortions, hydatidiform mole, chorionepithelioma.
3. Bleeding due to infections, including puerperal and non-puerperal endometriosis and adnexitis.
4. Bleeding due to neoplasm or tumors, including uterine, cervical and ovarian tumors—with the exception of endocrine tumors of the ovaries, etc.
5. Bleeding due to cervical pathology.

ALTERATIONS IN UTERINE BLEEDING

1. Due to erosion, obesity, etc. For instance a woman who has had normal menstruation and all of a sudden begins to put on weight and have disturbance with menstruation. There may be either of two reactions—profuse bleeding or amenorrhea.
2. Malnutrition.
3. Constitutional diseases.
4. Wasting diseases—cachexia.
5. Blood disturbances.
6. Psychological factors.
7. Change in climate. If a person moves

from the North to the South, or vice versa, she may have considerable disturbance with menstruation for several months.

UTERINE BLEEDING DUE TO ENDOCRINE DISEASES

1. Endocrine tumors causing ovarian dysfunction, etc.

2. Many polyps form in the endometrium itself and incidentally the glands on these polyps will function but at irregular intervals.

3. Adenocarcinoma.

4. Endometrial function may be altered by ovarian disturbance related to salpingitis, etc.

5. Uterine bleeding is often characterized by a depleting hemorrhage and may cause undesired sterility.

SYMPTOMS OF ABNORMAL UTERINE BLEEDING

First, functional uterine bleeding during adolescence, is most irregular and profuse.

Symptoms due to functional disturbance of the ovaries or endometrium.

The ovary is the gland that takes first place as the cause of bleeding. Bleeding actually comes from the endometrium which may be the end result where there is a disturbance due to other abnormal functions.

Many patients bleed but do not have normal menstruation, due to stimuli on the endometrium. They have not ovulated and do not have corpus luteum present. The continued stimulation may come in season or out of season, whether bleeding is progestational or estrogenic. When the patient is well developed or even over-developed for her age, it is very misleading to the doctor and the mother. If there is bleeding, it is thought to be menstruation. The reason for these prolonged periods of bleeding should be ascertained.

Prolonged and excessive periods of estrogenic bleeding may occur at frequent intervals and yet the patient may be free from bleeding for months at a time—perhaps three to six months. Anemia or poor general health may be noted. This makes the patient self-conscious.

The physician has two obligations to the adolescent who has irregular bleeding. First, HEMOSTASIS and second, CORRECTING the imbalance. An early diagnosis should be made. An endometrial biopsy is indicated. It is a very easy procedure to get the required amount of material and the set-up is quite simple.

We had a clinic[2] here in the Out-patient Department of Hillman Hospital (University of Alabama Hospital) a few years ago for taking specimens for endometrial biopsis. In this study we endeavored to get specimens to determine what type the bleeder was and it is interesting to note that in 107 patients, we obtained from one to twenty-five of these specimens for biopsis, over a period of months or years. We found that about equal numbers of these had endometrial proliferation and progestational phase. Most of these patients came to the clinic primarily without suspecting that they had cancer. Of this 107 cases, 15 or 15 per cent had placental tissue. Many had never been pregnant to their knowledge. This led us to believe that these cases had been carrying placental tissue over a period of years. Of this group (107 cases) 2.8 per cent had malignancies where none was suspected; and they were discovered simply by having endometrial biopsis done. We will show you the instruments used in taking the specimens for biopsies at the end of this discussion. If a malignancy is suspected, always do a complete curettage on the patient. Bleeding often checks within a short time. In treating these patients, let's not give them radium unless there is a definite indication for it, as this will cause a disturbance. Hemostasis is the first consideration.

Stilbestrol usually checks the bleeding. Curettage may be done more than once rather than give radium. When I think of the drugs other than penicillin and sulfa drugs, I believe for the general practitioner stilbestrol is one of the greatest "Godsends" that has come to us in treating bleeding. It will check practically every case of bleeding temporarily. Young girls who have been bleeding continuously for as long as six months will usually have a slowing down of the bleeding within a few days. It may not correct the condition but will check the flow. The same thing is true with adolescents. First, in elderly persons, we should know what is causing the bleeding for there may be a "smouldering fire" present—a malignancy existing. By giving stilbestrol in these cases, the bleeding is merely stopped. Stilbestrol will either produce bleeding or stop it, if given properly.

---

[2] Douglas, Gilbert F. Uterine Bleeding, Study of 107 Cases with Endometrial Biopsies. American Journal of Obstetrics and Gynecology. April, 1941, Vol. 41, pp. 624.

In our clinic here, we had stilbestrol furnished us to carry on this study. The only ill effects seen from it was nausea. We gave 1 to 110 mg. of stilbestrol over a period of several days. We checked the liver function and nothing was shown to indicate that stilbestrol had any ill effects there.

Radium given in from 200 to 400 mg. doses may be indicated to control hemorrhage in the adolescent. We should be leery of giving it for bleeding in young girls, for it often causes sterility and permanent damage. It is much better to do a curettage—one, two, or three times, over a period of a year or so. In giving radium 150 to 200 mg. hrs. (one hundred milligrams of radium applied for one hour equals 100 mg. hrs.), subjects the patient to injury to the endometrium. It would be much better to give x-ray which acts more on the ovaries. Try to make a diagnosis and work from the other angle, rather than give something that would destroy the function.

Uterine bleeding in the child-bearing age is usually from organic causes rather than functional. Amenorrhea should be differentiated from infrequent bleeding. Some patients flow only every three to six months. In making a diagnosis, organic causes should be ruled out. An endometrial study should be made on women past thirty years of age whose bleeding is irregular. You can take the specimens at the office without giving an anesthetic, or one can be given if desired. There is not much pain to the simple procedure. Have the patient come back at weekly intervals, so as to study the complete cycle.

Irregular bleeding coincidental with obesity is not uncommon and is not classified as functional.

Chorionic gonadotropes have no hemostatic effect. Androgen substance is contraindicated in treating females. If unable to control bleeding using estrogen, we should be very slow in prescribing male hormones. This may result in growing of hair, change of voice, etc., which may remain permanent. Of the two evils, most patients would rather have uterine bleeding, if not malignant, than the male characteristics.

TREATMENT OF UTERINE BLEEDING

The patient should have a complete physical examination, laboratory tests and basal metabolism. Then rule out any disturbance of an organic nature or any due to ovarian deficiency.

1. A biopsy gives invaluable information. In case of menorrhea and metrorrhagia, a biopsy will rule out malignancy. It will also determine whether or not the patient is ovulating.

2. Stilbestrol—1 to 5 mg. three times a day controls bleeding and usually within three days bleeding has been slowed down.

3. Complete general examination.

4. Laboratory work—blood counts, hemoglobin, urinalysis, etc.

Some patients may have hypothyroidism and should be given thyroid extract and after being built up to normal will be improved. NEVER LET A PATIENT COME IN AND LEAVE YOUR OFFICE WITH BLEEDING WITHOUT AN EXAMINATION IF SHE IS SEEKING RELIEF FROM HEMORRHAGE, EVEN THOUGH SHE MAY BE MENSTRUATING.

I had a patient two years ago who moved from the North to Tuscaloosa, Alabama. Before leaving New York state she consulted her physician and because she was menstruating, she was not examined. The doctor advised her to come back. In about three months she moved to Tuscaloosa and did not go back. Three months later, making a lapse of time of about six months, she came to me and an examination revealed that she had inoperable carcinoma of the cervix. That happens frequently. Regardless of flow, insist on an examination. Your responsibility ceases when you have done all you can. You may find an early stage carcinoma. INSIST ON SPECULUM EXAMINATION.

ENDOCRINE PREPARATIONS WITH MANUFACTURERS

The Anterior Pituitary-Like Hormone

(Prolan) Obtainable from pregnancy urine or the placenta.

Marketed under trade names:

1. Anterior-Pituitary-Like (A.P.L.) Ayerst, McKenna and Harrison.
2. Entromone, Endo-Products.
3. Antuitrin-S, Parke-Davis.
4. Pregnyl, Roche-Organon.
5. Follutein, Squibb.
6. Korotrin (Antophysin), Winthrop.

Anterior Pituitary Gland Extraction Products

Marketed under trade names:

1. Gonadotropic Factor, Polyansyn, Ovarian-Anterior Pituitary Liquid. Armour.
2. Gonadotropic Factor, Polyansyn, Growth Complex, Ayerst-McKenna and Harrison.
3. Prephysin (Anterior-Pituitary Gonadotropic Hormone) High Potent Prephysin, Chappel.
4. Pituitary Extract, Anterior Lobe, Lilly.
5. Antuitrin-G, Parke-Davis.
6. Amzinon, Roche-Organon.
7. Gynatrin, Searle.
8. Pituitary Body, Anterior Lobe, Dessicated, Sharpe and Dohme.
9. Anterior Pituitary Extract, Squibb.
10. Phyone, Wilson Laboratories.

The Estrogenic Hormone.

One ten-thousandth mg. of estrone (the estrogenic hormone) represents one I. U. Stated differently .1 mg. of estrone represents 1,000 I.U.

Marketed under trade names:

1. Estrone, Estriol, Abbott.
2. Emmenin, Ayerst-McKenna, and Harrison.
3. Estromone, Endo-Products.
4. Estrone, Estriol, Lilly.
5. Theelin, Theelol, Parke Davis.
6. Estrogenic Hormone, Reed and Carnrick.
7. Menformon, Dimenformen (estradiol).

One rat unit of dimenformon (estradiol) is equivalent to approximately five I.U. of estrone. Dimenformon benzoate (estradiol benzoate). (One International Benzoate Unit of estradol benzoate represents several times more activity and more protracted action than one I.U. of estrone). Roche-Organon.

8. Progynon-B (estradiol benzoate, Progynon DH is marketed also in ointment as follows: (a) 200 R.U. per gm. (b) 1,000 R.U. per gm. Schering.
9. Pro-Follin (estradiol - 17 - propionate) Schieffelin.
10. Amniotin (Amniotin in oil for nasal administration is marketed. Squibb.

The Corpus Luteum Hormone, Progesterone

One International Unit represents one mg. of chemically pure progesterone.

Marketed under trade names:

1. Lutromone (formerly Lutrone) Endo-Products.
2. Progestin, Lilly.
3. Lipo-Lutin, Parke Davis.
4. Progestin, Roche-Organon.
5. Proluton, Schering.
6. Progestin, Upjohn.

It seems to me if we can get one preparation that we can use uniformly, we will get better results than to use more, with which we are not familiar. Estrogenic hormone—(one ten-thousandth mg. of estrogen represents 1 I.U., .1 mg. represents 1,000 I.U. Estromone is the trade name. Corpus luteum hormone, progesterone, 1 I.U. represents 1 mg. of chemically pure progesterone.

I mention those so that you will know that there is very little difference in these preparations. Presumably they are all the same if properly standardized. If not standardized, we should not use them. They are being checked by the government and if we can get one that can be used uniformly, it will be better.

MALIGNANCIES THAT CAUSE UTERINE BLEEDING

Early malignancy of the cervix which would probably be squamous cell carcinoma occurs on the surface of the cervix. There are two groups to think of in considering these.

1. Clinical group.

When you find a little spot on the cervix do not take it for granted. It may be that it is non-malignant, but treat as such until proved otherwise for it may be Grade 1 carcarcinoma. Grade 2 clinically extends farther into the cervical tissue toward the bladder. Grade 3, where broken through into the peritoneum or base of bladder. Grade 4 extends pretty well into the body of the uterus and adnexae.

2. Microscopic Group.

A report from the pathologist will show the grade in this group, 1, 2, 3, or 4, indicating the activity of the cells themselves.

Frequently we find that a number of patients come in with uterine bleeding and on examination with speculum nothing can be seen, no erosion on the surface of the cervix. They may bleed more with menstruation, but frequently there will be an early malignancy invading the lining of the canal, which might be adenocarcinoma of the cervix, involving glands. Grade 1 is easily overlooked.

Group 1. Malignancy of Fundus. Adenocarcinoma usually starts in the glands. Certain amount of bleeding is present. Diagnosis would not be made on bimanual examination. It is better to give an anesthetic and do a complete curettage. If case bleeding continues after examination then give x-ray or radium or both and follow with surgery.

Group 2. Further invasion.

Group 3. Still further invasion—still within the capsule.

Group 4. More serious and further advanced extending beyond the peritoneal covering. Never fail to do a speculum examination if you expect to accomplish the most.

ROUND-TABLE DISCUSSION

Question: What advantage has stilbestrol over some of the improved products?

Dr. Douglas: Dr. McDowell, will you answer this question?

Dr. McDowell: Stilbestrol has been used extensively and some of the first work was done here on the original stilbestrol before it was actually put on the market. Dr. Douglas was doing some work here on endometrial biopsies and we obtained a supply of stilbestrol from one of the chemical houses. I do not think stilbestrol is the best that can be used or that it has proved to be perfect preparation, because it has been so misused. Many doctors use stilbestrol in general work and those who do gynecologic work think all we have to do is give a little stilbestrol and calm the symptoms down. Unless stilbestrol is very greatly controlled, the treatment is sometimes worse than the disease in that the patients will be improved for a short period and if stilbestrol is continued, will get bleeding from the original cause. I personally feel that natural estrogenic substances if given by mouth would be better. If stilbestrol is used, do not give very large doses. Bleeding can be controlled by as little as 1/5 mg. dose a day. Originally 1 to 5 mg. were given, but 1/2 to 1/5 mg. will control symptoms in the treatment of menopause.

Question: Should stilbestrol be given in cycles rather than straight through the period?

Dr. Douglas: Dr. McDowell, will you answer this question?

Dr. McDowell: If we are going to use any of the hormone products, we should try to simulate what the body is doing or should do. If we are using stilbestrol, we should try to give it in the same order that the ovaries would produce. Estrogen substance is produced during the entire period. After about twelve to fourteen days progesterone takes over. If you are going to use stilbestrol it should be given cyclically. Give it for two weeks, then stop and if possible substitute corpus luteum hormone for two weeks and then give stilbestrol again. This is now the accepted way, rather than through the entire cycle. Many women in menopause are treated with estrogenic substances and are over-treated. In our own cases here, we had many patients who were over-treated because we did not know the dosage and gave it through the cycle, which resulted in bleeding from over-stimulation of the endometrium.

Question: Isn't obesity caused by endocrine imbalance associated with uterine bleeding?

Dr. Douglas: Dr. Norton, will you answer this question?

Dr. Norton: We might say it is often from endocrine imbalance. Obesity is one thing about which no department of medicine knows too much, as well as menstrual disturbances. If we cannot find any organic cause for uterine bleeding, which would also cause obesity and if we cannot identify the cause, then that obesity is considered endocrine in nature but I don't see how we can prove it.

Question: Does odor have any particular significance as to type or cause of bleeding?

Dr. Douglas: Dr. McDowell, please answer this question.

Dr. McDowell: As far as I know, I don't think so, unless there is a malignancy due to breaking down of tissue which has a characteristic odor. I do feel, however, that gonorrhea in many instances will produce a definite odor that sometimes can make the diagnosis before you look at the smear. The patient's standard of hygiene has something to do with it. Condylomata will produce a fairly characteristic odor. Then there is a very definite type of odor that ordinarily goes with a bladder condition.

Question: Do you use theelin rather than some other preparation?

Dr. Douglas: Dr. Norton, will you answer this question?

Dr. Norton: Theelin is rather expensive and requires the patient to come in for hypodermic injections. Stilbestrol is considered by many as the treatment of choice.

Question: What dose of stilbestrol causes bleeding and what stops bleeding?

Dr. Douglas: Dr. McDowell, will you answer this question?

Dr. McDowell: We found that we were overtreating some women. Some in the menopause were still bleeding regularly or not bleeding at all. We used it originally hypodermically 5 mg. and after subjective symptoms were relieved, dropped to 1 mg. We should remember that each individual is different. One will react more completely than another. We found it best to use relatively small doses—½ mg. It may cause bleeding or hyperplasia of endometrium. Building up the dose will stop the bleeding. If increased too much, some of the endometrium will slough off and open up small vessels and bleeding will start again. Sometimes if stilbestrol is stopped, again sloughing off occurs and causes bleeding "of withdrawal."

Question: Should estrogen and progesterone be given at the same time?

Dr. Douglas: Dr. Norton, will you answer this question?

Dr. Norton: Estrogen only in the first half of cycle. During the second half give both. In line with this, Hamblin at Duke gives estrogen first and says that progesterone has no effect except in the last half of the cycle, which is preferable. If the patient comes in during the second half of the cycle, the best idea is to go ahead and start estrogen for two weeks and then progesterone.

Question: What of dysmenorrhea in an otherwise healthy girl with no organic disease?

Dr. Douglas: Dr. McDowell, will you answer this question?

Dr. McDowell: I think she should have a cervical dilatation with or without curettage. May have cervical stenosis or some blockage or it may be psychogenic.

PROCEDURE OF OBTAINING SPECIMEN FOR ENDOMETRIAL BIOPSY IN OFFICE WITH DEMONSTRATION OF INSTRUMENTS USED

There are many different instruments—Randall, Burch, Novak, etc. In the endometrial biopsy clinic we used the Novak suction curette. It has a little fenestrum on the curved side, with little teeth. The instrument is small enough to slip into the uterine cavity without dilating the cervix. Then by firm pressure and by drawing back and forth the physician can break off enough of the endometrium to get a good sized specimen. It can be used with a 5 or 10 cc. syringe. Catch the cervix with a tenaculum forcep, then slip this instrument into the uterine cavity. Judge how much pressure to use. Connect tubing with a cut-off to a specimen bottle. After getting tissue by back and forth movements as if curetting, withdraw curet and suck a solution of sodium citrate through the tubing so as to get all particles of tissue out. The citrate also prevents clotting of blood. Then take a piece of gauze and put over the top of the bottle and tilt it over so as to get all out. Transfer the little pieces of tissue onto a piece of filter paper. Hamblen uses the Burch instrument and gets little bites, which he takes at weekly intervals. We used in our study the Novak in most instances, but either is all right.

Believe me, every man has his secret sorrows, which the world knows not; and oftentimes we call a man cold when he is only sad.

—Longfellow

We must be free or die who speak the tongue
That Shakespeare spoke, the faith and morals
hold
Which Milton held.

—Wordsworth

The Modern Treatment of Burns

James A. Valone, M.S. (Surg). Capt., M.C.
Chief of General Surgery
Station Hospital, Camp Shelby, Mississippi

EVERY fifteen minutes of the day, twenty-four hours long, an ambulance comes screeching down a city street carrying one burn victim. But the hurry and rush is futile because that particular patient is doomed to die! One person dies of burns every fifty minutes, approximately 10,000 victims per year. There are thousands suffering from the after effects, maimed and deformed sufficiently to be ostracized socially and economically; we have all seen contractures of joints, fingers and unsightly disfiguring of the face. We are excluding the economic loss since this is very difficult to determine or assess, as is the physical suffering associated with the burn itself.

Until rather recently, the treatment of burns was confined to its local therapy, and this mostly for comfort. It has long been known that salves and ointments are comforting to the patient and serve as local analgesics. There were two reasons for this passive attitude toward burns: First, everybody knew, or at least thought, that if one-third of the total body surface is involved, the victim's prognosis is poor, and he probably would die despite any therapy; secondly, we can not prevent infection except by local protection by such emollients as vaseline. If a patient developed secondary infection and secondary contractures, that was more or less inevitable, at least he didn't die.

We can safely say that the late Dr. Davidson was the father of the modern treatment of burns. Tannic acid, which he advocated, has been discarded almost completely, but he gave burn research a terrific impetus and for the first time we started to treat the patient systemically as well as locally. He proves, beyond a doubt, that the initial shock associated with severe burns is due to fluid loss, carrying with it electrolytes. Saline and glucose therapy was the fad through 1940, at least for systemic treatment, to prevent shock and secondary toxemia. Periodic red blood counts were done to determine the concentration of blood. Blood chloride determinations were also done at frequent intervals. Locally, the tannic acid coat was helpful, supposedly, by fixing the burn toxin in the skin, preventing it from being absorbed into the systemic circulation. In reality, the treatment of the burned area before applying tannin was the big factor in preventing the toxemia and infection in these cases. He advocated treating the burn as a surgical wound. All blebs, blisters and dead skin were débrided; this was done by attendants who scrubbed as for any other major operation, wore masks, caps and sterile gowns. This procedure cut down considerably the incidence of secondary infection. Temperature of the room, or heat cradle, was approximated to body heat, approximately 75° to 85° Fahrenheit.

With the advent of the sulfa drugs, a new weapon became available, but it was not long before we learned that severe burn patients were poor candidates for sulfa drug therapy. The urinary output in these major cases is usually low and the patient dehydrates. Furthermore, we learned that severe burn cases ending fatally revealed central necrosis of the liver and kidneys, so chemotherapy had to be used with caution. The Coconut Grove studies were equivocal with regard to their efficiency in preventing infection.

About 1938, Henry Harkins showed that a burned extremity actually increases in size and volume and that this increased volume is due to the accumulation of fluid-tissue fluid, fluid representing more than serum, containing proteins which are normally found in the circulating blood stream. After analyzing the blood protein in burn victims he found a depletion of plasma proteins. He further proved the point by measuring the ratio of blood cells to plasma. This is easily done by allowing a test tube of blood to stand, allowing the cells to settle to the bottom and measuring the supernatant liquid. Normal blood shows a cell volume of 45 per cent, with hemoglobin concentration the volume increases to 55 per cent and 70 per cent, and even higher.

Shock experiment gave the same blood changes. Therefore, it was assumed that hemoconcentration is the direct cause of shock in burn cases. Therefore, if severe burn cases could be carried through this critical period, namely the first twenty-four to forty-eight hours following the accident, by adequate treatment, the first great cause of death would be removed. Plasma replacement therapy proved its value by effectively eliminating the shock. The extent of plasma loss and the burned area is proportional directly to the depth and the extent of the area or areas of capillaries involved. Shock studies revealed that capillary permeability following endothelial injury can be reduced by the administration of adrenal cortex extract. This tends to prevent shock by cutting down the plasma loss from the circulating fluid. This extract has been put on the market under the trade name of eschatin or desoxycorticosterone and its dosages must be sufficient, 5 cc. four times daily for seventy-two hours. Dosages of this extract measured in minims are inadequate and might just as well be used as a hair tonic.

Infection, the second cause of death and/or morbidity, is best controlled by penicillin parenterally. The sulfa drugs did not prove their worth in the Coconut Grove disaster. Penicillin must be given in large doses, 40,000 to 50,000 units every three hours. Larger than average doses are necessary to prevent local infection. Average doses will prevent septicemia, pneumonia, and kidney infection. Toxic effects for penicillin are rare and not serious.

Once the patient is carried through the critical period of the first twenty-four to thirty-six hours, the surgeon's attention can be focused on the burned tissue and treat this as a surgical wound. Extremities are débrided so that no débris remains, sterile vaseline strips are applied, then followed by sterile gauze and in turn by cotton mechanic's waste for pressure and elastic bandage applied externally. The chest and abdomen are treated the same way, though with more difficulty. These dressings need not be changed until drainage and soiling, or discomfort, make it necessary. As a rule the first change is not necessary until eight to ten days have elapsed.

Burns about the face and neck can be treated the same way provided the burn is a first or second degree burn, therefore assuring good epithelialization, without scar tissue formation. Deep third degree burns about the face and neck should be grafted very early and some are even grafting these parts by immediate dermatome split thickness grafts. The longer you wait for grafting, the greater the underlying fibroblastic proliferation and scar tissue formation.

Burns about the axilla, elbows, neck and popliteal fossa present the added problem of contracture formation. These joints should be placed in optimum position from the very beginning and splinted in this attitude if necessary.

The following drugs and procedure have proved their merit in the treatment of burns and will be remunerated for emphasis:

1. Morphine in adequate doses for the first twenty-four hours and given intravenously if necessary.

2. Débridement of the surgical wound using sterile technique, including a scrub-up, rubber gloves, masks and gowns. The mask is most important. Our surgical infections come from the nose and not from the hands unless the surgeon habitually picks his nose.

3. A severe burn is a perfect indication for plasma replacement therapy. Whole blood is not indicated the first twenty-four to forty-eight hours. Contrary to popular thought, or belief, too much plasma can be given and manifest itself by pulmonary edema. The rule to follow is 50 cc. plasma for every 1 per cent of body burn provided the burn is a second or third degree in depth. This rule holds for adults and must be modified for children. Therefore, a 30 per cent involvement of the body would require 1500 cc. of plasma. This should be given in a relatively short period of time or twelve hours, and two-thirds of the total amount should be given the first six hours. Let the hematocrit be your guide. Give glucose 5 per cent for hydration and to stimulate urinary output to 1000 cc. daily.

4. Glucose 5 per cent or 10 per cent to insure adequate urinary ouput. If a blood chloride can not be done for guidance, look for pretibial edema and glossiness of the skin. Whole blood is indicated after forty-eight hours. In severe burn cases, when the stage of toxemia is present, they generally become anemic and run a low hemoglobin and RBS.

5. Adrenal cortex extract, 5 cc. every four hours for twenty-four to forty-eight hours.

6. Tetanus antitoxin, 1500 units.

7. Penicillin, 40,000 to 50,000 units every three hours to prevent secondary infection.

8. Penicillin locally if infection develops de-

spite parenteral penicillin.

9. Pressure vaseline dressing locally.

10. Prevent contractures about joints by correct positioning.

The following charts represent the disturbed physiology in severe or major burns and will be reviewed to clarify the treatment indicated. The treatment of a major burn will be reviewed, dividing it in periods such as: The first hour, the first forty-eight hours, second to fifth day, etc. The treatment will be subdivided into general or systemic treatment, local therapy and laboratory determinations to check pathologic physiology.

HEMATOCRIT DETERMINATION

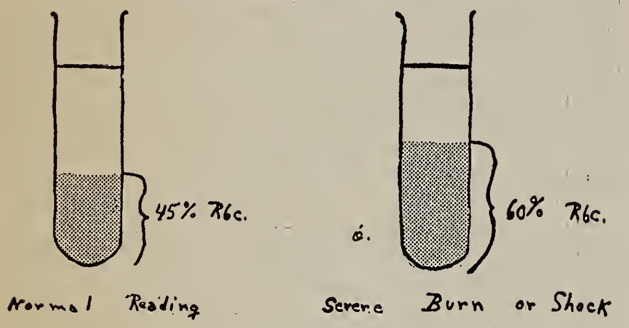


Chart No. 1—Test tube (a) represents a normal blood hematocrit plus 45 per cent blood cell volume 55 per cent plasma.

Test tube (2) represents a blood hematocrit in a moderately severe burn four to six hours following the accident. (Sixty per cent blood cell volume and 40 per cent plasma.)

BERKOW'S METHOD FOR ESTIMATING EXTENT OF BURNED AREA

Region	Per Cent Body Involved
HEAD	6 per cent
UPPER EXTREMITIES:	
Both Arms and Forearms	14 per cent
Both Hands	4.5 per cent
TRUNK:	
Anterior Surface	20 per cent
Posterior Surface	18 per cent
LOWER EXTREMITIES:	
Both Thighs	19 per cent
Both Legs	14 per cent
Both Feet	6 per cent

Chart No. 2—A chart from Berkow's method for estimating area involved.

Harkin's Method: Give 100 cc. of plasma for every point that the hematocrit determination exceeds the normal of 45.

Hence, the extreme importance of knowing this determination and subsequent follow-ups to indicate the cessation of treatment. Always remember that too much can be given and not enough may let the patient go into shock!

First Aid Method: For each ten per cent (10 per cent of body surface involved by a deep burn) 500 cc. of plasma should be given.

The amount of plasma indicated should be administered within the first twelve hours following the accident by a continuous intravenous drip.

METHODS OF CALCULATING PLASMA DOSAGE

HARKIN'S METHOD:

Give 100 cc. of plasma for every point that the hematocrit determination exceeds the normal of 45.

FIRST-AID METHOD:

For each 10 per cent of body surface involved by a deep burn, 500 cc. of plasma should be given.

Chart No. 3—After determining the extent of skin involved we can easily calculate the dosage of plasma indicated.

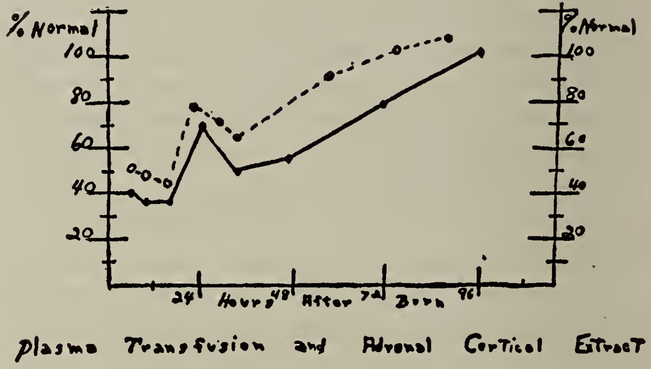


Chart No. 4—This represents the changes in the blood chemistry and its physical composition in a severe burn case. Note the high hematocrit reading and depleted blood proteins within a short time following the trauma.

Plasma therapy has been started to correct the pathological chemistry and desoxycorticosterone was administered, 5 cc. every four hours.

Within seventy-two hours the hematocrit and plasma protein concentration are approaching their normal levels.

- - - - o - - - -
PLASMA VOLUME

————●————
PLASMA PROTEIN

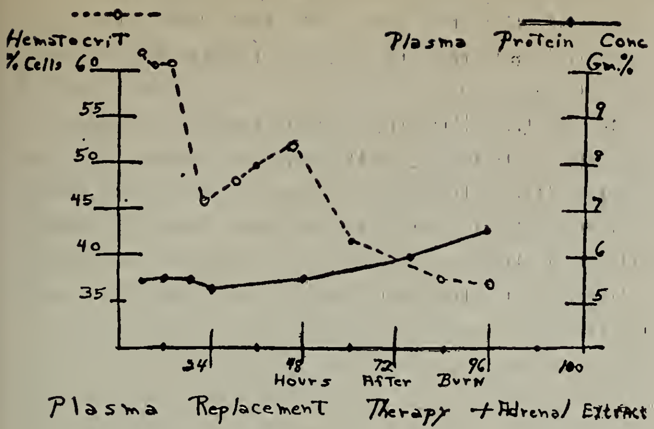


Chart No. 5—The converse of the above Chart No. 4 is represented in the same severe burn case showing the depletion of circulating plasma volume and plasma protein.

The objective of plasma replacement therapy and adrenal cortex administrations is obtained in ninety-six hours.

The dip in the curve at the twenty-four-hour interval may be due to temporary stoppage of plasma infusion.

Timing is very important in the treatment of burns. Everyone has seen energetic and ambitious interns start extensive debridement of wounds or a burn before evaluating the general condition of the patient and strength of his vital signs. After all, we want a living patient and not a dead one with meticulously clean burn wounds. We, therefore, analyze the treatment by intervals of time following the accident and divide it into three categories: **General treatment, Local treatment and Laboratory.**

TREATMENT — PRESSURE DRESSING — MAJOR BURNS

First Hour

General Treatment	Local	Laboratory
1. Morophine sulphate		1. Hematocrit
2. I. V. Infusionsof plasma.		2. Plasma proteins
3. External heat	75 to 85° F.	3. Red blood count and HBG
4. Oxygen for shock.	Delay until shock under control.	4. Urinalysis

Chart No. 6—Morphine must be given in adequate dosages up to gr. one-fourth to one-half qr. Dosages can be given intravenously unless the patient is in shock. Acute morphinism contributes to cerebral anoxia and should be avoided in shock.

NOTE: Local treatment is delayed until shock is under control.

Hematocrits are taken every four hours as in RBC and HBG. Plasma proteins and urinalysis at twenty-four intervals.

FIRST 48 HOURS

General Treatment	Local	Laboratory
1. Continue Morphine P. R. N.	1. Debridement of burn	1. Hematocrit Q4H
2. Adrenal cortex	2. Open blebs or blisters	2. Urinalysis.
3. Plasma as indicated by Hematocrit	3. Apply Vaseline gauze plus pressure dressing	
4. Glucose & Saline P. RR. N.	4. Positioning of joints.	
5. Penicillin 40,000 q 3 h.	Clinical data	

T. P. R. and blood pressure frequently. Record urinary output.

Chart No. 7—In addition to treatment indicated on Chart No. 6, adrenal cortex extract and penicillin parenterally are started.

Only large doses of the latter, 50,000 every three hours, will prevent local infection.

Shock will have been overcome after forty-eight hours and local treatment started and pressure dressings of vaseline applied.

Laboratory data can be curtailed after forty-eight hours.

SECOND TO FIFTH DAY

General treatment	Local	Laboratory
1. Morphine or Barbiturates	No dressing changes	1. Daily Hematocrit
2. Penicillin continued.		HBG
3. Glucose & Saline as indicated		Plasma Protein CBC
4. Fluids by mouth		Blood Sugar
5. Diet - high protein and cho		NPN Urinalysis

Chart No. 8—Patients are usually comfortable in this period with vaseline dressings. High protein diet is started to combat secondary anemia which is common after the first week.

Locally—No treatment is necessary except for comfort to the patient.

Daily complete blood counts and hemoglobin are important from now until all wounds are healed.

SIXTH TO FOURTEENTH DAY

General treatment	Local	Laboratory
1. Sedatives	1. Superficial burns healed.	1. Daily
2. Whole blood for secondary anemia	2. Deep burns debrided and grafted when possible.	HBG Complete blood count

3. High vitamin diet.	3. Reapply pressure dressing P. R. N.	NPN Urinalysis
	4. Local penicillin ointment for infection.	

Chart No. 9—Whole blood transfusions are important during the second week.

The local treatment will demand primary attention. All superficially burned areas will have healed on first change of dressing. Deeper wounds will require debriding and skin grafts when the recipient area is ready.

When local infection develops despite parenteral locality, penicillin ointment will prove of value.

HEALING PERIOD—SECOND TO FOURTH WEEK

General treatment	Local	Laboratory
1. Periodic blood transfusions	1. Change dressing weekly for deep burns.	1. CBC twice weekly
2. Vitamin therapy	2. Skin grafting as necessary	2. Daily urinalysis

Chart No. 10—Vitamin therapy, especially ascorbic acid, will aid healing and multi-vitamin preparation by mouth will be adequate.

The dressings are changed as necessary as the appearance of the wounds will dictate and areas grafted when clean and ready for new skin.

Daily urinalysis and periodic complete blood counts are the only laboratory data necessary.

The treatment of major burns is arduous and painstaking, requiring a doctor skilled both as a physician and surgeon. First, a physician must understand the care of a seriously ill individual, sick not only physically but mentally. Psychic trauma may actually be more serious than the wound. Secondly, considerable surgical skill is required in treating a burn wound which may heal with or without complications or deformity. On the other hand, he may have to prepare the wound for plastic surgery. **The right treatment at the right time** may very well be the theme of the surgeon-in-charge.

These cases require constant nursing and adequate care may demand a special nurse. The laboratory studies mentioned may seem multiple and cumbersome but can be done by most laboratories.

Severe burns have been and continue to be a challenge to our profession. We are equipped to cope with such catastrophes, thanks to the research of American surgeons. To apply ourselves is all that remains.

The General Practitioner In the Cancer Program*

GEORGE D. DICKS, M. D.
Natchez, Miss.

I FEEL THE temerity of a mere beginner in practice as I approach the problem of the general practitioner in the cancer program. Yet I am not without hope that this and similar discussions may so stimulate and provoke our thinking as to give us a newer and fresher perspective of an age-old question.

To consider the role of the general practitioner in the cancer program, let me review briefly the principal objectives of the American Cancer Society:

1. Cancer education.
2. Cancer study.
3. Cancer diagnosis and treatment.

The general practitioner is an indissoluble part of the plan of attainment of each one of these objectives. Militarily speaking, he is in the most forward medical echelon and it may well be on his individual and cooperative efforts that a large measure of the success or failure of this program depends. I do not intend to minimize one whit the importance of any other contribution to this work, or to infer that the general practitioner occupies a more elevated position in this program; but I do mean to emphasize—and emphasize to that practitioner himself—the realization of the value of his own work.

Consciously or unconsciously, most of us are conducting some sort of educational program with our patients almost daily. Certainly the opportunities for guiding the lay understanding of the problem of cancer are frequent. Most educators will no doubt tell you that mass education is a difficult and exasperating thing with a sort of Utopian tinge to the idea; but yet, if these efforts on our part bring to light one or more cancer cases, even one additional cancer suspect, then I believe them worthwhile. There is no need to try to develop cancer phobias in our patients. We have enough phobias of other kinds without that. We can, however, take advantage of every chance to offer simple, clear explanations of and develop understandable approaches to cancer thinking. The effect on your own understanding will be surprising.

---

*Read before the Tri-County Medical Society, February 26, 1946.

For those of us who have the ability, interest, and circumstances there will be developed many possibilities for the specific study of cancer, as outlined in the second objective. Of this objective alone I shall have little to say. Broadly speaking, and from the general practitioner's standpoint, it is essentially a part of the third and most important objective—diagnosis and treatment.

Historically speaking, our problems in the field of cancer diagnosis and treatment come to us from out of the mists of the past—from the realms of antiquity. Throughout those many years, and especially in the last decade, many important discoveries have been made. Our knowledge has been immeasurably increased. But let us not be smug about that. There is one specific, dynamic problem which is with us yet, although it forms the bedrock on which diagnosis and treatment rest. It is a problem that is with us continually. I refer to the problem of scientific curiosity. You may wonder why I speak of this as a problem. Surely we must be considered to have a certain amount of such curiosity to be called any sort of doctor of medicine. That is very true; but, honestly now, how consistently do you practice that trait?

I think of no field of medicine which more justly calls for persistent scientific curiosity than the field of neoplastic disease. In the parade of patients through any general practitioner's office come the signs and symptoms of many and varied conditions—general medical, surgical, obstetrical, gynecological, pediatric, etc. From that broad outlook comes much that is trivial; a more modest amount that is serious. It is no easy job always to sift apart the trivial from the serious. Many of the serious conditions may be overlooked, no matter how sincerely or honestly we may try. The early signs and symptoms of neoplastic growths do not always come with specimen labels on them. But remember this—it is only through the continual and persistent stimulation of our curiosity that we may hope to make any real progress in the approach to the problem of cancer.

The ultimate diagnosis of many—indeed, perhaps most—cases of cancer will fall into hands other than yours. Some of the cases you may never see, their discovery and treatment originating in special clinics or in the hands of specialists. But a larger share of these discovered cases should and will originate in your hands—if you will but maintain a rigorously inquisitive mind toward everything your five senses or even that sixth sense, horse sense, may tell you. Above all, take nothing for granted. That eroded cervix you saw yesterday—did you really look at it closely, or did you take it for granted! That more frequently recurrent constipation of old Mr. Smith—did you pay much attention to that part of his story, or did you take it for granted? That indolent ulcer on the back of the hand—did you logically explain its persistency, or did you take it for granted? Again I reiterate, the continual application of inquisitiveness is the primary starting point of the part of the general practitioner in this program.

I make no plea for early diagnosis. Its implication in any diagnosis of neoplasm is too obvious to require explanation or exposition here. What I do urge upon each and every one of you is a vital consciousness of his part in this work; an honest appraisal of your scientific curiosity. It is but one part you will play in the total effort but the foundation of its success and its coöperative attainment of the common goal will arise out of nothing less than the constant fanning of the flame of curiosity.

Recapitulating simply, the general practitioner has a real responsibility in every phase of the drive against cancer—a responsibility which I am certain he will discharge with every ability at his command. Yet, in the accomplishment of that privilege, I would caution him—and every other person no matter how lofty to be his intellectual brow—to remember the words of Thomas Henry Huxley to "sit down before fact as a little child, be prepared to give up every preconceived notion, follow humbly wherever and to whatever abysses nature leads, or you shall learn nothing."

Cancer versus Physicians and the Public

A. L. Gray, M.D.
Director of Division of Preventable Disease
Control, Mississippi State Board of
Health, Jackson, Miss.

INCREASE IN THE number of deaths due to cancer at once suggests a greater degree of activity on the part of private physicians, public health workers, and the public in general.

Judging from the present rate of deaths from cancer in Mississippi one person in seven or eight will have the disease and most of those having it will die because of it. It is well known that one-third to one-half of those now dying of cancer could recover if present facts about cancer were applied to the fullest extent. As in all other things medical in nature, the responsibility of making this knowledge work for the benefit of Mississippians rests first squarely with the physicians of the state, and, second, with public health workers. These two groups of people, with the organizational, educational, and fund-raising facilities of the Mississippi division of the American Cancer Society and its component county organizations must see to it that six to eight hundred of the total of sixteen hundred deaths caused by cancer each year in Mississippi do not occur.

Many things can and must be done. First, when people know, as they must know, the facts about cancer, they will go to their physicians for help at a time when something can be done. This means that the American Cancer Society, public health workers, and physicians have much to do in informing the public about early signs of cancer and the need for immediate action upon appearance of these signs. Then, when those who have suspected cancer report to physicians, the physicians must have a high index of suspicion and a refreshed knowledge and make certain that the condition is or is not cancer. When this determination is made and cancer is diagnosed, all known effective methods of cure must be made available by private physicians and public institutions. These should be our aims.

This education, organization, and treatment will require money. The money must come first, from those who have cancer, through the private physician-patient relationship. Second, it must come through public subscription to the state and local units of the American Cancer Society as a result of acquaintance with the need. Third, such funds must come through channels of taxation. The funds from the latter sources will be used to pay private physicians for services for which cancer suspects and cases cannot pay and for providing educational, diagnostic, and treatment facilities which the private physicians are in position to provide.

FIGHT
Cancer

The Mississippi Doctor

Published monthly at Booneville, Mississippi.
Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D. .... Editor-in-Chief
MILDRED P. ANDERSON........ Assistant Editor

David E. Guyton, Blue Mountain College...... Poet

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.

A. F. Cooper, M. D. .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

E. M. Holder, M. D. C. R. Crutchfield, M. D.
F. M. Acree, M. D. H. King Wade, M. D.

Lawrence W. Long, M.D.
J G. Archer, M.D. W. Lauch Hughes, M.D.

Manuscripts and material for publication under the Mississippi State Medical Association should be received not later than the twentieth of the month preceding publication. Address material to Lawrence W. Long, M.D., Suite 412 Standard Life Building, Jackson, Mississippi.

STATE MEETING

The Mississippi State Medical Association holds its annual session this year at the Robert E. Lee Hotel in Jackson, May 14 and 15. Dr. Lampton Crawford of Tylertown is the honored president. He is worthy and well qualified for this honor, having served his people well as a general surgeon in a small town and as a fine Christian citizen. Dr. J. K. Avent of Grenada, another general surgeon whose service is also broadened by an active civic mindedness, is president-elect. Dr. Tom Dye remains the faithful and popular secretary.

The subject of the president's address on Tuesday night is "Medical Progress in the Twentieth Century". Dr. M. Y. Dabney of Birmingham, president of the Southern Medical Association, will deliver the annual oration on the subject, "Unusual events in Medical History", and Dr. J. P. Wall of Jackson will speak on "What Socialized Medicine Means to Mississippi".

Dr. A. B. Harvey of Tylertown is chairman of the Section on Surgery. Out of town essayists for this section are: Doctors Alton Ochsner and Curtis Tyrone of New Orleans their subjects being "The Doctor's Cancer" and "Menopausal Bleeding", respectively. This section meets Wednesday morning.

The sections on Hygiene and Public Health and Eye, Ear, Nose and Throat hold their sessions Tuesday afternoon, with Dr. Paul Haney of Laurel as chairman of the first, and Dr. S. B. Caruthers of Grenada, chairman of the other. Edwin S. Kagg of New Orleans is the guest public health essayist, while Drs. Samuel B. Nadler of New Orleans, Jack S. Guyton of Baltimore, and Gilbert E. Fisher of Birmingham are Eye, Ear, Nose and Throat Section guests.

Dr. H. C. Sheffield of Jackson is chairman of the Section on Medicine for Wednesday afternoon. He has arranged a strong program, with Carl F. Vilter of Cincinnati and Frank F. Whitacre of Memphis as out-of-state essayists.

The House of Delegates will meet Tuesday morning at nine o'clock and again on Wednesday evening at seven-thirty.

The past-presidents of the Central Medical Society will give a breakfast as seven-thirty Tuesday morning at the Robert E. Lee for all state past-presidents. Section luncheons are at one on Wednesday. The Half Century Club, composed of all doctors who have been practising for fifty years, will be given a dinner on Tuesday evening, beginning at five-thirty.

The Woman's Auxiliary will hold its annual session with Mrs. L. J. Clark of Vicksburg as president and Mrs. Stanley Hill of Corinth as president-elect. This valued asset to the Association has arranged a nice program and splendid entertainment.

It will take a little time to get back in full swing in our state meeting, but we will really get on the way at the coming meeting. Mississippi has before it a new era in medical service and it behooves us to be wide-awake and to go forward.

With Dr. Lampton Crawford as president and Dr. J. A. Avent as president-elect, at the coming meeting we will proceed according to the year of last elections.

Be sure to visit the commercial exhibits of one and all at our state meeting. We are glad to have these exhibitors with us. They are anxious to serve and want to coöperate with the medical profession. We should coöperate for the good of all concerned. Dr. Dudley Jones has the exhibits in charge and he always does a good job of it.

Our four-year medical school and our affiliated hospital should be on the way at an early date so that the medical service to our people may soon be more efficient. They must go hand in hand if the people are to receive the best medical service. Interns may serve part time in the small hospitals, and nurses may train part time in the small hospitals. Resident doctors may come out to the small hospitals for some of their work also.

It will take a little time, but our state medical association will soon get back into the swing. It has rendered a great service in the past and we predict a still greater work in the future.

The Southern Medical Association instituted a "public night" several years ago, its purpose being to bring valuable information and inspiration to both the medical profession and the laity and to promote a better understanding between the doctors and the people. It has proved a great success. Just before the war this plan was adopted for our State Medical Association. One such meeting was held and partially another. They were a success. We believe this public night should be a part of the state program. There needs to be a better understanding between the profession and the laity and this is a good way to promote it.

The death of Dr. Fred M. Sandifer of Greenwood, who died at the age of sixty-eight on April 19, is widely lamented.

Beware of tumors. The benign tumor usually has a capsule around it, but the malignant one is usually irregular in shape and has no clearly defined boundary.

RESUMPTION OF OUR ANNUAL MEETING

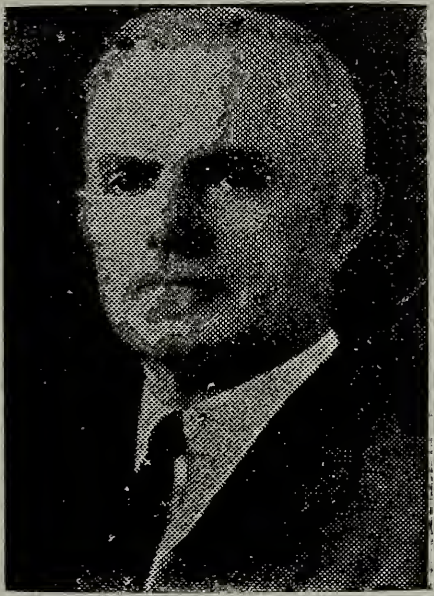
Now that the shooting war is over, the Mississippi State Medical Association will meet again for its annual convention. In conforming to the requests of the federal government, there were no annual meetings held while travel and shipping was so vital to the war effort. This spring finds us with the majority of our members returned from the Armed Forces and the four corners of the globe. Most of them have become readjusted and resettled into civilian practice, and the people of our state should be able to receive more prompt medical and surgical care than during the pressing days of the global war. Then, too, the physicians and surgeons who served so well, so faithfully, and long hours without rest, should now be given a "breathing spell" to readjust themselves and devote more time to study, reading and recording of the unusual events that will be of interest to the medical profession in general.

The program of the state meeting is an outstanding one with very able talent from afar and at home expounding the facts and wisdom from which we will all benefit. Plans are being made by the Central Medical Society to receive a large attendance. Mississippi medicine should advance more rapidly now than at any time in its existence. Every physician in Mississippi should avail himself of the opportuntiy of attending this meeting at least one day. Every elected delegate and alternate should be present for the important meetings of the House of Delegates. "United we stand, divided we fall". Organized medicine has stood the test of time, and we are now at the crossroads from which we must go forward. Decisions should be made after careful deliberation by the members of the profession chosen to represent the profession at large, and therefore each officer, past-president, and delegate should be present to take part in the discussions in the House of Delegates.

The doctors of the Central Medical Society tell us that they are more than ready and willing to do any and everything to aid in making the first annual meeting of the Mississippi State Medical Association since the war, a success. Every doctor in Mississippi is urged to attend this meeting and to call on any member of the host society for aid and assistance while in Jackson on May 14 and 15 at the Robert E. Lee Hotel, the convention headquarters. L. W. L.

News and Comment

MESSAGE FROM OUR PRESIDENT



Dr. Crawford

The recent session of the Mississippi legislature will go down in history as one of the most progressive in the history of the state. The hospital bill passed by the legislature has made it possible for every community in the state to have a hospital in reach. Without hospital facilities there can be no satisfactory solution of the medical man's problem. The old country doctor will soon pass off the stage of action and become merely a pleasant memory. The highly educated young doctor who has served two years internship in a well-equipped hospital will not be willing to locate in a community far removed from a hospital.

Our problem is more a shortage of hospitals than a shortage of doctors. The hospital will be an inducement for doctors to locate in the town or county.

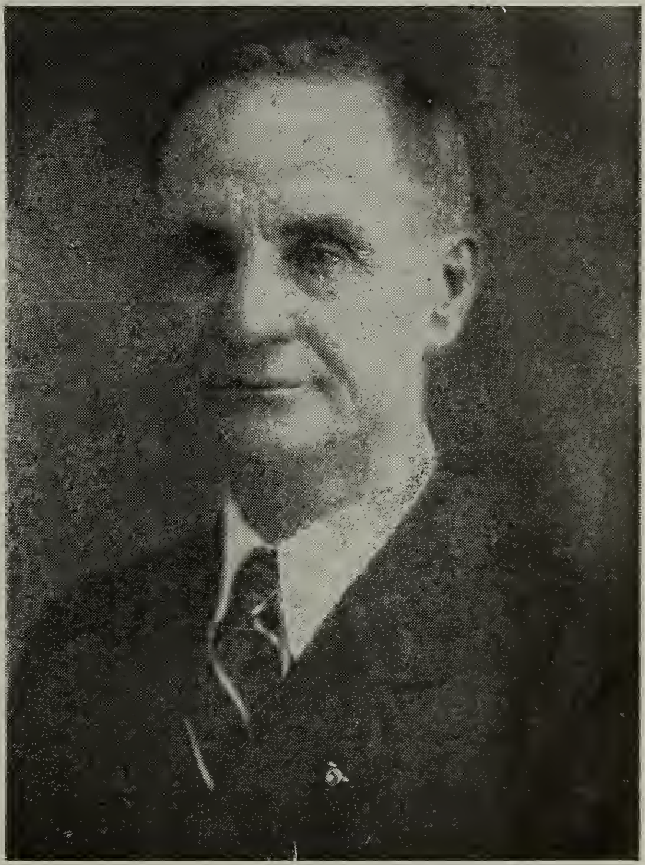
Mississippi has always been a leader with suitable hospital facilities, and can have a medical college as good as the best. The medical profession will be satisfied with nothing less.

Another legislature constituted largely of the same membership passed the per capita bill, making it possible for the local hospital to take care of the indigent sick, permitting the patient to remain under the supervision of his family physician.

With the accomplishment of the plan made into law by the legislature, the Mississippi doctors can elevate their chins and take pride in the fact that our state is again leading the way, in providing satisfactory hospital and medical service for practically everyone.

Let every doctor in Mississippi put his shoulder to the wheel and make this dream come true.

SPEAKER OF THE HOUSE



Dr. Williams

Dr. J. Rice Williams of Houston, Miss., is speaker of the House of Delegates of the Mississippi State Medical Association.

Dr. Williams is also president of the Northeast Mississippi Thirteen Counties Medical Society, and a member of the Half Century Club, which means that he has been practicing medicine for more than fifty years.

Dr. Williams typefies in a fine way the medical integrity of the profession. As speaker of the House of Delegates of our State Medical Association he has served exceedingly well. He knows parliamentary rules and he is a diplomat of the first order. In masonic circles Dr. Williams stands at the very top. His work in this line has been monumental. Mental honesty is an outstanding trait of his character. His mind follows the truth as certainly as water seeks its level. His medical wisdom and his advice in the affairs of man have served his state in a telling manner.

He has not only practiced medicine for fifty years, but he has kept informed and marched in the front ranks as this great science won its conquests for the good of mankind.

Dr. Williams loves his church and his lodge and his medical confrères, his home and his town and his state, but the very tenderest and kindest love in his heart is that for our Northeast Mississippi Thirteen Counties Medical Society which he now serves as president. Every member of this society esteems him as a doctor and loves him as a friend. He will preside at the next meeting of the society at Booneville in June.

INVITATION

Two years ago we invited all the doctors in the state who had been practising fifty years to attend a luncheon at our state meeting in Jackson. Last year we did not have a regular meeting of the Association. The idea of this meeting and the permanent organization that we are trying to perfect came from Dr. W. A. Evans of Aberdeen, who belongs to a similar organization in Illinois. At the coming meeting in Jackson, which opens Tuesday, May 14, we are extending a cordial invitation to every doctor in the state who has been practising for fifty years, to be our guest at a dinner on Tuesday at five-thirty at the Robert E. Lee Hotel.

If you plan to be present, please drop us a card as soon as you can.

Sincerely,
W. H. Anderson, M.D. Editor the
Mississippi Doctor
Booneville, Mississippi

LIST OF COMMERCIAL EXHIBITORS FOR 1946

D. W. Jones, Jackson, Chairman of Exhibits

E. R. Squibb and Sons, New York.
Southern Surgical Supply Co., New Orleans.
Van Pelt and Brown, Richmond.
Mead-Johnson and Company, Evansville, Ind.
American Surgical Supply Company, Jackson, Miss.
A. S. Aloe Company, St. Louis.
Lederle Laboratories, New York.
E. J. Hart Company, New Orleans.
J. B. Lippincott Company, Philadelphia.
E. L. Mercere, Inc., Memphis.
General Electric X-Ray Company, Memphis.
The Borden Company, New York.
Kay Surgical, Inc., Memphis.
Dick X-Ray Company, Memphis.
The White Laboratories, Newark.
McKesson and Robbins, Birmingham.
J. A. Majors Company, New Orleans.

PHYSICIANS RETURNED FROM MILITARY SERVICE

One hundred fifty-eight physicians have returned to Mississippi from military service.

Seventy or 44 per cent located in towns of less than 5,000 population.

Twenty-two or 14 per cent located in towns of less than 10,000 population.

Nineteen or 12 per cent located in cities of less than 20,000 population.

Twenty-five or 16 per cent located in cities of less than 50,000 population.

Twenty-two or 14 per cent located in cities with 50,000 population or more.

One hundred seventeen, or 74 per cent, returned to former practice.

Twenty-nine, or 18 per cent, located in different town.

Five or 3 per cent, were not previously located.

Seven or 5 per cent, previously out-of-state located in Mississippi.

REFRESHER COURSE IN OTOLARYNGOLOGY

A one week didactic and clinical refresher course in otolaryngology has been arranged for specialists in the field, from May 13 to 18, 1946, inclusive. Applications for registration should include school of graduation, training and experience. Check for tuition ($50.00) should accompany the application.

In addition, a special course in bronchoesophagology will be given from June 3 to 15, 1946, inclusive. It will consist of lectures, animal and cadaver demonstrations, diagnostic and surgical clinics.

The course will be under the direction of Drs. Paul H. Holinger and Albert H. Andrews, Jr.

Tuition for this course is $100.00. Check should accompany application. Class limited to twelve physicians.

For further information address:

Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Illinois.

DESOTO COUNTY

The affairs of the Second Councilor District are in a good order. The North Mississippi Medical Society voted to unite with the Northeast Thirteen Counties Society. The Tate and Desoto county societies have one hundred per cent membership.

The North Mississippi Hospital had an auspicious opening, with Dr. V. B. Philpot in charge.

We will be pleased to see you all in Jackson at the state meeting, May 14.

STATE MEDICAL EXAMINATION NOTICE

The Mississippi State Board of Health will hold medical examinations on June 17 and 18, 1946 in Jackson, Mississippi. (Convention Hall, Mezzanine Floor, Edwards Hotel).

Examinations may be taken on the first two years only (June 17), as well as on all four years of medicine; (or on the last two years (June 18) for those who have passed the first two years before this Board).

For application blank and other information write to: Dr. R. N. Whitfield, Assistant Secretary, State Board of Health, Jackson 113, Mississippi.

TO A SPEEDER*

I saw you barely miss a little boy on a tricycle this afternoon, and heard you yell, "Get the hell out of the way. Don't you know any better than to ride in the street?" He didn't answer because he hasn't learned to talk yet. So I'm going to answer for him.

No, the little boy doesn't know any better than to ride his tricycle in the street. He has been warned not to, but little boys don't always heed warnings. Some adults don't, especially traffic warnings; for example, the one limiting the speed of automobiles in city streets.

I am going to tell you something about that little boy: He has a mother who endured considerable inconvenience, anxiety and suffering to bring him into the world. He has a father who worked hard and made many sacrifices to make him healthy nad happy.

The supreme purpose of their lives is to have their little boy grow up to be a useful and prosperous man.

Now stop a minute and think. I know your minutes are valuable and I know it will be hard for you to think. But try. If you should kill a child, how would you feel facing its parents? What excuse could you possibly offer Him whose kingdom is made up of little children?

Children, my friend, were here before you or your automobile were ever thought of. All the automobiles on earth are not worth the life of one little boy on a tricycle. Any competent garage mechanic can put a car together, however badly it's smashed, but nobody on earth can put a child together once its life has been crushed out. We don't know what that child may some day be. But we know what you are, and it's unimportant. We could get along without you, but we can't spare a single little boy on this street.

My friends, be careful and do not let this happen to you.

---

*New Orleans physician has written for this story, so I take this method of getting it to him and many others who would do well to read and profit thereby. It is from the *Augusta Union*. (L. L. Minor)

ARTEMIS WARD SAID IT

Let us all be happy and live within our means, even if we have to borrow the money to do it with.

Chronic irritation is thought to play a big part in causing cancer.

Deaths

DR. JOSEPH B. STONE

Services for Dr. Joseph Boon Stone, who distinguished himself in Mississippi education and politics and practiced medicine in Memphis from 1921 until his death, were held March 10 in Memphis.

Dr. Stone maintained his practice, although not so actively in recent years, until he suffered a stroke.

The doctor was born at Como, Mississippi. His father, the late Rev. Sam Stone, lived much of his life in Arkansas and once was president of Searcy College. Dr. Stone was graduated there and received his medical degree at Vanderbilt University.

He did postgraduate work at New York University. He practiced in Quitman County, was owner of Lost Lake Plantation at Belen, Miss., superintendent of Quitman County schools and a representative of the county in the Mississippi State Legislature.

He served in the Medical Corps in World War I in Siberia, China, the Philippines and France, and left service as a lieutenant colonel.

He leaves a son, Coe Stone of Memphis, and a daughter, Mrs. Joe Taylor of San Antonio, Texas.

DR. JOHN G. PRINE

Burial of Dr. John G. Prine, seventy-seven years old and a former member of the house of representatives in Mississippi, on March 27 closed the life chapter of a typical "country doctor."

Doctor Prine, born in the former Lenoir community now known as Morgantown, Marion County, worked as a day laborer and at the age of twenty-three began going back to school to become a doctor. He obtained his M.D. degree from the University of Tennessee, passed the state board of examiners and returned to his native rural community on Pearl River where he spent the remainder of his life practicing medicine among his folk.

During the depression years, the people were unable to pay their medical bills. Doctor Prine got a job as rural mail carrier, served his postal route in day and served his patients during off hours. He was later elected to the Mississippi house as representative from Marion County to succeed Kelly J. Hammond, of Morgantown. Hammond, attorney, now with the Veterans Administration in Jackson, delivered a eulogy at the doctor's funeral. Religious rites were conducted by the doctor's Baptist pastor, the Reverend Chappel.

Survivors are: three sisters, Mrs. J. W. Weatherford of Picayune, Mrs. Jessie Headspeth of Goss and Mrs. Alice L. McCall of Brookhaven; and three brothers, Charles Prine, T. M. Prine of Goss and Dr. J. S. Prine of Columbia.

DR. TOM W. MERIWETHER

Death came suddenly on November 24 from spinal meningitis to Capt. Tom W. Meriwether of Doddsville, Mississippi. Serving with the Medical Corps in Seoul, Korea, he was scheduled to leave December 15 to be home and discharged by Christmas.

He was well the day before his death, according to a letter dated November 23 received by Mrs. Meriwether. The family did not know of his illness until the telegram arrived.

Born in Memphis, the thirty-two-year-old physican was educated at the old Memphis University School and attended the University of Tennessee before taking medical work at U. T. School of Medicine. He received his degree in 1933 and practiced in Senatobia, Mississippi, before going to Doddsville. He planned to resume his practice there upon his return.

Going overseas last January, Captain Meriwether was in three major battles on Okinawa and was caught on the China Sea during the Pacific typhoon, en route to his post in Korea.

He was the son of the late T. W. Meriwether, who was associated with the Illinois Central Railroad. The captain leaves, besides his mother and wife, a son, Tommy Meriwether III, 10, and a daughter; Val Meriwether, 12.

Book Reviews

Geriatrics is steadily gaining in medical cognizance. But it is a field that still lacks the consideration due it. This subject is much more important than it was a half century ago because many more people are reaching the number of years that class them as aged.

In this country we must give much credit to Dr. Malford W. Thewlis of New York City. His fifth edition of *Geriatrics,* revised with sixty-five illustrations is composed of 500 pages and is written in a most interesting manner.

This book is very valuable to every man in the practice of medicine whether he be a surgeon, in general practice, public health, or even a pediatrician. It deals with the practical clinical problems of the aged, observed over a period of thirty-four years of clinical work. The author points out that the cause of aging is not yet known just as the cause of cancer is not, but there can be some things done about senescence. During the war the treatment of the aged has assumed greater importance as the older men and women have been called to take the place of the younger. To keep the aged mentally and physically fit will be very important in peace time, as pointed out by the author. This book contains contributions from six authors and, in addition, contributions from many friends. It is divided into eight parts: General Considerations, Geratology, Medico-legal, Miscellaneous Problems, Diseases of Metabolism, Infections, Systemic Pathologic Conditions, and Special Topics.

Some of the very interesting topics stressed are: prevention of coronary thrombosis in physicians, home treatment of pneumonia, gastritis, mental hygiene, and preventing the aging processes.

The book is so well written that it is more like reading a novel than a book on a scientific medical subject of the greatest importance. Order your copy from C. V. Mosby, St. Louis.

Spring with its beautiful flowers and grasses is here again. Nature is loveliest in the spring-time.

Capricious April with its whimsical weather conditions brings meetings, Mississippi Medical particularly.

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—James G. Thompson, Jackson.

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—J. F. Lucas, Greenwood.

Orthopedics—Thomas H. Blake, Jackson.

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—Karl O. Stingily, Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

PATHOLOGY

DIVERTICULA (LUSCHKA'S CRYPTS) OF THE GALLBLADDER. H. E. Robertson, M.D., and Wil-
H. E. Robertson, M. D., and Wilson J.
son J. Ferguson, M.D., Rochester, Minn. Archives of Pathology. Vol. 40:312-333, November-December, 1945.

Following an exhaustive review of the literature, the authors attempt to clarify the anatomic and pathologic significance of our pouchings of the mucosa of the gallbladder; and present their findings in the histological examination of 495 gallbladders obtained from two sources—necropsies (175) and surgical operations (320).

Their conclusions are as follows: "In approximately half of all gallbladders removed from persons more than thirty years of age the mucosa has invaginated the underlying structures, sometimes as far as the peritoneal lining."

"This invagination tends to form diverticular spaces with branching pouches, which occasionally simulate mucous glands. They are lined with epithelium corresponding in every respect to that which lines the mucosa of the inner surface of the gallbladder. These cells secrete mucus or a mucus-like fluid."

"The greater number of the diverticulae open into the lumen of the gallbladder by ducts, which are often tortuous and narrow. Some are cut off in whole or in part from the lumen and become cysts with budlike branches. When such a group is more or less localized, a formation, often called an adenoma, is produced. It is most frequently found in the fundus of the gallbladder but may occasionally involve more, or even all, of the gallbladder. The term 'adenoma' is misleading and inaptly applied. 'Multicystic diverticula' and 'multilocular cystic diverticula' are more fitting designations."

"The crypts thus formed may contain bile, bile pigments, cholesterol crystals or at times typical biliary calculi. Exudative inflammation may occur in them up to the stage of abscess formation and even of rupture into the peritoneal cavity. The residuum of such inflammation may be obliteration of the epithelial lining, proliferation connective tissue and collections of lymphocytes and other cells."

"Increased intracystic pressure, absence of muscularis mucosae, a loosely, irregular arranged muscular layer and the independent response of the muscle bundles to physiologic stimuli account for the initial diverticula-like indentations. The increased pressure is, more logically, the result of neurogenic dysfunctional states of the extra-hepatic biliary system, although other mechanical factors, such as stones and inflammatory obstructions, may play etiologic roles."

"Except for the complexity of the branches, these crypts correspond in every respect to the so-called false diverticula of the colon and the urinary bladder and should be denominated diverticula of the gallbladder."

"There is little except custom to justify calling them Luschka's crypts of Rokitansky-Ascholl sinuses. Not only did these investigators not possess sufficient priority but they failed in several important details to recognize the true significance of the structures which they described."

PEDIATRICS

POLIOMYELITIS—Louis P. Gebhardt, Ph. D., M.D. and William M. McCay, M.D., CHP., Salt Lake City, Utah—The Journal of Pediatrics—January, 1946.

The authors' introductory in this article states that the disease poliomyelitis is endemic in many parts of the United States throughout the year, but epidemic periods usually are evident by June or July, the peak being in August or September with a beginning decline by October. In the warmer climates of the United States, the disease may show an upward swing as early as April, as was the case in the Los Angeles area during the 1943 epidemic. This general cycle of endemicity and epidemic peaks is repeated regularly with moderate to severe epidemics being prevalent every four to six years, with a general regional variation in the United States.

The authors in this paper point other means than contact as the mode of spread of this disease. Twelve multiple cases of poliomyelitis developed in six families on the same day; twenty multiple cases developed from one to five days after onset of the disease in a brother or sister and ten of these cases developed within two days of that of the siblings. Of a total of forty-five multiple cases in families, thirty-two developed in less than the generally accepted incubation period of from seven to fourteen days after exposure, if we consider the brother or sister to expose another member of the family. In one family with four cases, two children developed the disease the same day and two developed the disease two days after. Two other children, who had played with those in the family with four multiple cases and had eaten of the same unwashed peaches, apples, and pears on August 17 and 18, 1943, developed the disease August 31 and September 1, respectively, or about the same time that the multiple cases of the disease (four in one family) had developed. This data therefore suggests that the majority of these patients were exposed to the virus at about the same time and probably from the same source. No direct contacts with any known cases of poliomyelitis and the multiple cases could be traced, except the family unit and the two cited cases of patients who developed the disease at the same time as the four children in the other family.

This is in contrast with multiple cases in families having a well-known contact disease such as measles, mumps, or chicken-pox, where a brother or sister generally develops the disease after the regular incubation period, when secondary cases in families develop.

Possible common virus sources for these multiple cases of poliomyelitis in families could be virus contaminated foodstuff, since all members of a given family unit usually eat the same kind of food.

Peak fruit and vegetable production and highest fly incidence correlate the peak period of poliomyelitis cases and the evidence presented that 100 per cent of the persons in the cases surveyed had eaten unwashed or unpeeled fresh fruits and vegetables from one to two weeks prior to developing poliomyelitis, suggests that food may play a role in the dissemination of the virus. Ample virus source could well be represented in area of faulty sewage disposal and with swarms of flies present, virus to-fly-to food-to-patient seems to be in the realm of probability. Such foods that may be contaminated with the virus find their way into many different areas, including remote and isolated places, which would account for isolated and sporadic cases of the disease.

It is suggested, therefore, that poliomyelitis is an accidental disease of the "filth borne" group of diseases; that "virus contaminated food" may play a very active role in the spread of this disease. The limitations of spread of the virus would be dependent on fly population, source of virus for flies, and an adequate source of fresh foods, such as fruits and vegetables, as well as other foods that may be eaten uncooked. Also that such foods be convenient to populated areas in order for virus, that may be deposited, to survive for a sufficiently long enough time to be ingested by susceptible individuals.

Definite proof of the spread of virus of poliomyelitis by means of contaminated food rests on actually isolating the virus from fresh foodstuffs and demonstrating that flies may contaminate such foods by depositing virus thereon. Such proof has been suggested by Ward and associates since they were able to isolate the virus from bananas contaminated by flies.

A summary of this article is as follows:

1. Multiple cases of poliomyelitis in families show that the majority of the cases developed at the same time. Also that in these multiple cases the children probably obtained the virus at the same time and from the same source, suggesting means other than contact as the mode of spread.

2. Fresh unwashed or unpeeled fruits and vegetables were eaten in 206 of the 206 cases of poliomyelitis surveyed.

3. Direct contact was traced in only 13.6

per cent of the 241 cases surveyed.

4. No evidence was found that water supplies, milk supplies, or swimming pools were means by which the disease was disseminated.

5. Bite of insects, such as flies and mosquitoes, suggests a possible means of virus spread.

6. Closing of schools during the epidemic failed to reduce the incidence of the disease among the school age group.

COMMENT

This article is quite interesting since it has a tendency to show that poliomyelitis is obtained in ways other than by contact. There have been quite a few investigations, the results of which have convinced the investigators that polio is obtained through the consumption of fresh unwashed or unpeeled fruits and vegetables, and this is just another one of the investigations which seems to be rather convincing. At least it should behoove all of us who have the care of children under our supervision to teach those responsible the necessity of washing and peeling fruits and vegetables that are to be consumed without cooking..

State Board of Health

Felix J. Underwood, M.D.

THE STAGE IS SET

By A. L. Gray, M.D., Director
Division of Preventable Disease Control

As physicians and public health workers begin to turn from wartime to peacetime activity, there is a mingled feeling of relief and of looking-forward. Relief, because there can be some letting up on many of the wearying demands of war; a looking-forward because there will be a little more time to put into effect some of the far-reaching advances of the past few years and to achieve more of the constructive ends of present-day medical knowledge.

Even though the shooting and bombing war is over, there is little question but that we are far from victorious in the war against disease, although we have admittedly made some good progress. Consider the present incidence of diseases like diphtheria, tuberculosis, typhus fever, poliomyelitis, cancer, undulant fever, influenza, meningitis syphilis, gonorrhea, hookworm disease and numerous others. These diseases have prevailed among the people of the state and nation for many years, although many of them had declined in prevalence until the beginning of the war. Are we now to witness the same alarming increase in disease incidence as has always followed previous wars? Some authorities have expected such increase, limited in extent only by the degree of intelligent application of known measures of control. There is already some evidence of increased prevalence of certain diseases.

What are the reasons for this increased danger following war? First, most of these diseases thrive in the midst of a moving and crowded population. About twenty-seven million people migrated from their home communities to do war work. An additional ten million men are being demobilized. Nearly one-third of the population will be going back home. They will be coming back from many areas of the world and to their home communities they are likely to bring certain of the diseases prevalent to the countries from which they come or diseases contracted en route to their homes. A new vigilance is called for in preventing spread of these diseases.

Another situation favorable to increase is the critical housing shortage—a situation which it may not be possible to correct for several years. The more crowded people live, the greater ease with which diseases spread. The practice of good personal hygiene and sanitation becomes more difficult, both of which are all important in keeping down the spread of infection.

This is not the whole story by any means as to why communicable diseases may increase. Public health departments which form the bulwark against these diseases are at least 25 per cent understaffed and much time will be required to reconstruct health staffs to levels of safety. Then there is the shortage of physicians in Mississippi, with no early relief in sight, and this is bound to have a profound influence on keeping diseases in check.

Let's look at a few of the problems more specifically. In the first place, diphtheria has not only increased to serious proportions in Europe, but also in Mississippi in the last few months. This increase in diphtheria is resulting from (1) fewer children receiving diphtheria toxoid (physicians and health officers have not been able to devote as much as usual to this phase of control); (2) moving and crowding of population; (3) cyclic ocurrence of the disease. Undoubtedly much more must be devoted to control. Parents must be alerted to the dangers of neglect and urged to seek preventive measures for their children at the proper time.

Another disease which takes an unnecessary heavy toll each year is tuberculosis. Over 55,000 Mississippians have died of this disease since 1913, and it is estimated that there are 5,000 known cases in the State at the present time. Ignorance and apathy are responsible for many deaths each year. Much can be done to alleviate this situation when present knowledge regarding the disease is fully applied. There is new hope for better combatting tuberculosis through the intensive case-finding program now being initiated throughout Mississippi and other states in cooperation with the United States Public Health Service. Plans have been developed which will make it possible to x-ray chests of all people in a given county within a few weeks. Miniature x-ray pictures costing only a few cents per person will be used. It is hoped to be able to x-ray the entire population of the State within five years. This method of approach will find many cases of tuberculosis in the early stages when cure can be effected and measures instituted to check the spread of the disease. We can and we must prevent the usual postwar increase of tuberculosis as well as eradicate it.

The two diseases, syphilis and gonorrhea, which received so much attention during the war will continue to require vigilance. As Dr. Thomas Parran, Surgeon General of the United States Public Health Service, points out, "The potentialities of their increased transmission and entrenchment in new strongholds are great, because public health authorities will have to work uphill against an enormous and unrestricted movement of population, against depleted services, and against relaxed public opinion." With newly acquired knowledge of rapid treatment, case finding, and education during the war, and with a continuation and intensification of the present program, these diseases should be practically eradicated within the next ten years. But if the line is not held, a rapid and continued increase for several years may be expected, weakening the structure of the community and bringing untold suffering and handicap to people in all walks of life. It is up to physicians and health officers to see that this line is held and that citizens generally appreciate the necessity for fullest cooperation in controlling these diseases.

Typhus fever has been increasing in prevalence in the State for a number of years and considering its amazing record in winning the wars which "generals start," it should be attacked with every weapon at our disposal. Foremost among preventive measures is a rat eradication program in which individuals and communities will be called upon to cooperate.

Undulant fever also calls for community action, as it undoubtedly will continue to increase in proportion to the consumption of raw milk from cows infected with Bang's disease. Prevention consists of pasteurization of milk and elimination of infected cattle from the herds. Another factor which enters into the spread of this disease is the public auction where many cattle known by the owners to be infected are purchased by unsuspecting individuals.

Cancer, one of the most feared diseases, is being attacked with new vigor and interest in the state. In the light of present scientific knowledge of cancer, the annual loss of approximately 1500 of our citizens from this disease is an indictment of the public conscience, the medical profession, and public health workers. A large percentage of these lives can be saved through proper cooperation of the public, the physicians and public health workers. The Mississippi Division of the American Cancer Society has made a good start toward solving this problem. It remains for the medical and public health professions and the general public to get behind this program and give it fullest support to help bring about a decrease in the number of cancer deaths. Indications are that they will as is evidenced by the increasing and support of recent months.

A most serious deficiency in communicable disease control is the almost complete lack of hospitalization facilities for such diseases as meningitis, typhoid fever, ~~scarlet~~ fever, diphtheria, etc. Practically all public and private hospitals in the State will not knowingly admit communicable diseases for treatment. Other states are far out in front of Mississippi in this regard and admit communicable disease cases for treatment, having instituted the proper procedures for preventing cross-infection. As long as such procedures are adhered to carefully, there is little likelihood of jeopardizing the health of the other patients. Mississippi does have one good hospital which has had the foresight to meet this situation. It is hoped that others will follow the example it has set, for as long as there is failure to hospitalize communicable disease cases, there is less chance for recovery for the patients and increased danger of spreading the infections in the community.

Protection against all such diseases can and should be secured. The stage is set for a new era in health advances demanding an arm-in-arm march of physicians, public health workers, hospitals, and individuals—an enlightened army marching against the enemies of life and health promising a fuller measure of real living for all participants.

STATISTICS

The Division of Vital Statistics reports that there were 315 more deaths in Mississippi during December, 1945, than in November, 1945—an increase of 23 per cent. Some of the increase was expected for December due to the large number of deaths which usually occur during this month as a result of respiratory infections. There were 74 deaths from influenza and 79 deaths from bronchopneumonia and lobar pneumonia. Other selected causes of death in December were reported as follows:

Diphtheria	4
Pulmonary tuberculosis	37
Syphilis	25
Cancer	124
Diabetes	26
Pellagra	4
Pneumonia	79
Maternal deaths	14
Congenital malformations	9
Premature birth	34
Violent or accidental death	187
Automobile accidents	43
Ill-defined or known causes	253

PHYSICIANS RETURNED FROM MILITARY SERVICE

158 physicians have returned to Mississippi from military service. 70, or 44 per cent, located in towns of less than 5,000 population. 22, or 14 per cent, located in towns of less than 10,000 population. 19, or 12 per cent, located in cities of less than 20,000 population. 25, or 16 per cent, located in cities of less than 50,000 population. 22, or 14 per cent, located in cities with 50,000 population or more. 117, or 74 per cent, returned to previous locations. 29, or 18 per cent, located in different towns. 5, or 3 per cent, were not previously located. 7, or 5 per cent, previously out-of-state, located in Mississippi.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	February 1946	February 1945	February Five-Year Average
Acute Poliomyelitis	6	3	3.4
Bacillary Dysentery	574	618	478.0
Dengue	0	0	0.0
Diphtheria	32	37	26.8
Influenza	14227	8942	10504.0
Measles	2738	1952	2655.4
Meningococcus Meningitis	16	17	26.8
Other Forms Meningitis	6	6	9.2
Pellagra	138	160	158.0
Pneumonia	2839	2564	2518.4
Pulmonary Tuberculosis	100	109	110.8
Scarlet Fever	36	189	75.8
Smallpox	1	1	2.0
Tularemia	6	1	4.6
Typhoid Fever	3	7	7.2
Typhus Fever	19	8	6.0
Undulant Fever	1	4	2.8
Whooping Cough	476	717	822.8

Due to improved methods of case-finding and more widespread knowledge about the disease, tuberculosis did not increase in this country during the war, though it rose to alarming proportions in Europe and Asia. Nevertheless, it is deplorable that tuberculosis took more than 205,000 American lives during the war years. —Harry S. Truman.

Woman's Auxiliary

President .... Mrs. L. J. Clark
Vicksburg
President-Elect .... Mrs. Stanley Hill
Corinth
First Vice-President .... Mrs. H. C. Ricks
Jackson
Second Vice-President .... Mrs. Henry Boswell
Sanatorium
Third Vice-President ...... Mrs. W. H. Anderson
Booneville
Recording Secretary .... Mrs. Geo. W. Owens
Jackson
Fourth Vice-President .... Mrs. Ben Walker
Jackson
Treasurer .... Mrs. J. D. Simmons
Cleveland
Historian .... Mrs. Harvey Garrison
Jackson

FROM OUR PRESIDENT

Dear Auxiliary Members:

This is my last message to you before our state meeting in May.

My associations have been most pleasant, and it is with some feeling of regret that I give up the office as president. It is with pleasure though that I pass the responsibility on to one as capable and gracious as your president-elect, Mrs. Stanley Hill. For two years she has worked diligently in her office, and is far more familiar and experienced in the work than I.

Let me urge you to attend our state convention in Jackson, May 14-15. Since we had no meeting last year there should be a greater eagerness than ever to attend this one. We missed the inspiration that we gain from the friendly contacts and renewed friendships. I shall be happy to see every familiar face, and eager to meet and know the many new members. I rejoice with those of you whose husbands have returned from service, and you will have a more cordial welcome than ever at our reunion.

If you are not an Auxiliary member, please become one immediately. There is a greater need than ever for organization of our doctors' wives.

Women's influence in legislation is important and we are more interested now than at any other time. We have had a part in some constructive legislation in our state—The premarital examination law, the four-year medical school, and the defeat of the Wagner-Murray-Dingell bill are legislative measures that we are interested in. We need a good, strong, well-informed auxiliary to study and interpret the many changes taking place.

My two years as your president have been a privilege. It is my hope that the Auxiliary will continue to grow in strength and usefulness. Whatever progress has been made during my two terms as president has been because of your—officers, councilors, and members, your coöperation, encouragement, and helpfulness in every way.

My heart is full of love and deep appreciation for your every consideration of me.

Affectionately,

ANNE CLARK

STATE PRESIDENT HONOR GUEST AT LUNCHEON

The Jackson County unit of the Auxiliary to the Coast Counties Medical Society was hostess to doctor's wives of the Ninth District of the State Auxiliary at a luncheon in the home of Dr. and Mrs. R. C. Eley in Moss Point on Friday, March 8.

The luncheon was arranged buffet style from a spring dining table centered with a beautiful arrangement of cut flowers. Guests served themselves to a delicious menu of turkey and all the accessories, then found their places at card tables which had been arranged in the double parlors. Mrs. Eley's daughter, Mrs. W. F. McLeod, assisted her in serving coffee and a dessert course of ice cream and homemade cake. Azaleas and other spring flowers were used in profusion throughout the spacious reception suite.

After the luncheon Mrs. S. B. McIlwain, president of the Jackson County Unit and councilor for the Ninth District, welcomed the visitors and introduced Mrs. L. J. Clark of Vicksburg, president of the State Auxiliary.

Mrs. Clark spoke of many topics concerning Auxiliary work, and emphasized pending legislation that vitally concerns the medical profession and the public as a whole.

Those present: Mrs. E. C. Parker, Gulfport; Mrs. J. J. Carter, Mrs. Presley Werlein, Mrs. D. L. Hollis, Mrs. Harold, Mrs. B. J. Welch of Biloxi; and Mrs. F. O. Schmidt of Ocean Springs.

Co-hostesses with Mrs. Eley were Mrs. L. H. Eubanks, Mrs. W. J. Weatherford, Mrs. Robert Cameron, Mrs. J. N. Lockhard, Mrs. Andrew Hedmeg, and Mrs. S. B. McIlwain of Pascagoula, and Mrs. J. T. Thompson of Moss Point.

DOCTORS ENTERTAINED BY CENTRAL MEDICAL AUXILIARY

Husbands of the members of the Central Medical Auxiliary were delightfully entertained with the annual Doctors' Day party which was in the form of a picnic supper at Battlefield Park.

Outdoor games and a social hour were enjoyed until 6:30 o'clock, when a delicious supper was served picnic style under the direction of the committee composed of Mrs. A. G. Wilde, Mrs. J. Gordon Dees, Mrs. W. F. Hand, Mrs. T. E. Wilson, Mrs. V. D. Hagaman, Mrs. Boyd Edwards and Mrs. Walter Lipscomb.

Following supper, the company gathered in the recreation building where Mrs. Peter J. Trolio, assisted by Mrs. Marvin E. Dobson at the piano, graciously directed the entertainment for the occasion. The guests participated in and greatly enjoyed a grand march, square dancing, group singing and a quiz program.

Those present included: Dr. and Mrs. G. E. Riley, Dr. and Mrs. A. G. Wilde, Dr. and Mrs. W. F. Hand, Dr. and Mrs. J. Gordon Dees, Dr. and Mrs. H. C. Ricks, Dr. and Mrs. Guy Post, Dr. and Mrs. J. P. Wall, Dr. and Mrs. P. R. Greaves, Dr. and Mrs. Galahey, Dr. and Mrs. Fred Hollowell, Dr. and Mrs. T. G. Ross.

Dr. and Mrs. Sterling McNair, Dr. and Mrs. Robert Price, Dr. and Mrs. Temple Ainsworth, Dr. and Mrs. Reddens, Dr. and Mrs. W. R. Bethea, Dr. and Mrs. W. E. Noblin, Dr. and Mrs. C. C. Smith, Dr. and Mrs. W. J. Witt, Dr and Mrs. Buren Alexander, Dr. and Mrs. Steve Coley, Dr. and Mrs. J. P. Rude, Dr. and Mrs. R. C. O'Ferrall, Dr. and Mrs. H. F. Garrison, Sr., Dr. and Mrs. J. G. Thompson

Dr. and Mrs. L. W. Long, Mrs. Ellis, Mrs. Nathan Kendall, Dr. and Mrs. A. E. Gordon, Dr. John McIntosh, Dr. and Mrs. T. S. Robertson, Dr. and Mrs. H. C. Sheffield, Dr. and R. F. Grenfell, Dr. and Mrs. Charles Ward, Dr. and Mrs. J. W. Wadlington, Dr. and Mrs. W. A. Smithson, Mrs. A. L. Gray, Dr. Dillworth, Dr. W. C. Redmond, Dr. and Mrs. H. F. Magee, Dr. and Mrs. Boyd Edwards, Dr. and Mrs. Bill Austin, Dr. and Mrs. J. Walton Lipscomb, Dr. and Mrs. T. E. Wilson

Dr. and Mrs. T. B. Holloman, Dr. and Mrs. F. A. Donaldson, Dr. and Mrs. J. B. Marshall, Dr. and Mrs. Ray Biggs, Dr. and Mrs. L. R. Reed, Mr. and Mrs. Peter J. Trolio, Mr. and Mrs. Marion V. Dobson.

FIGHT
Cancer

The exact cause of cancer is not known.

It kills more men than women. One hundred and seventy-five thousand people will die of cancer this year.

Deaths from cancer are on the increase, one person in America dies of cancer every three minutes.

Cancer is no respector of age.

The attack on cancer is to be made from three fronts: education, service and research.

One person in eight will die of cancer unless there is something done about the matter. Only heart disease takes a greater toll of human life than cancer. Twelve million dollars are to be contributed this year to fight cancer.

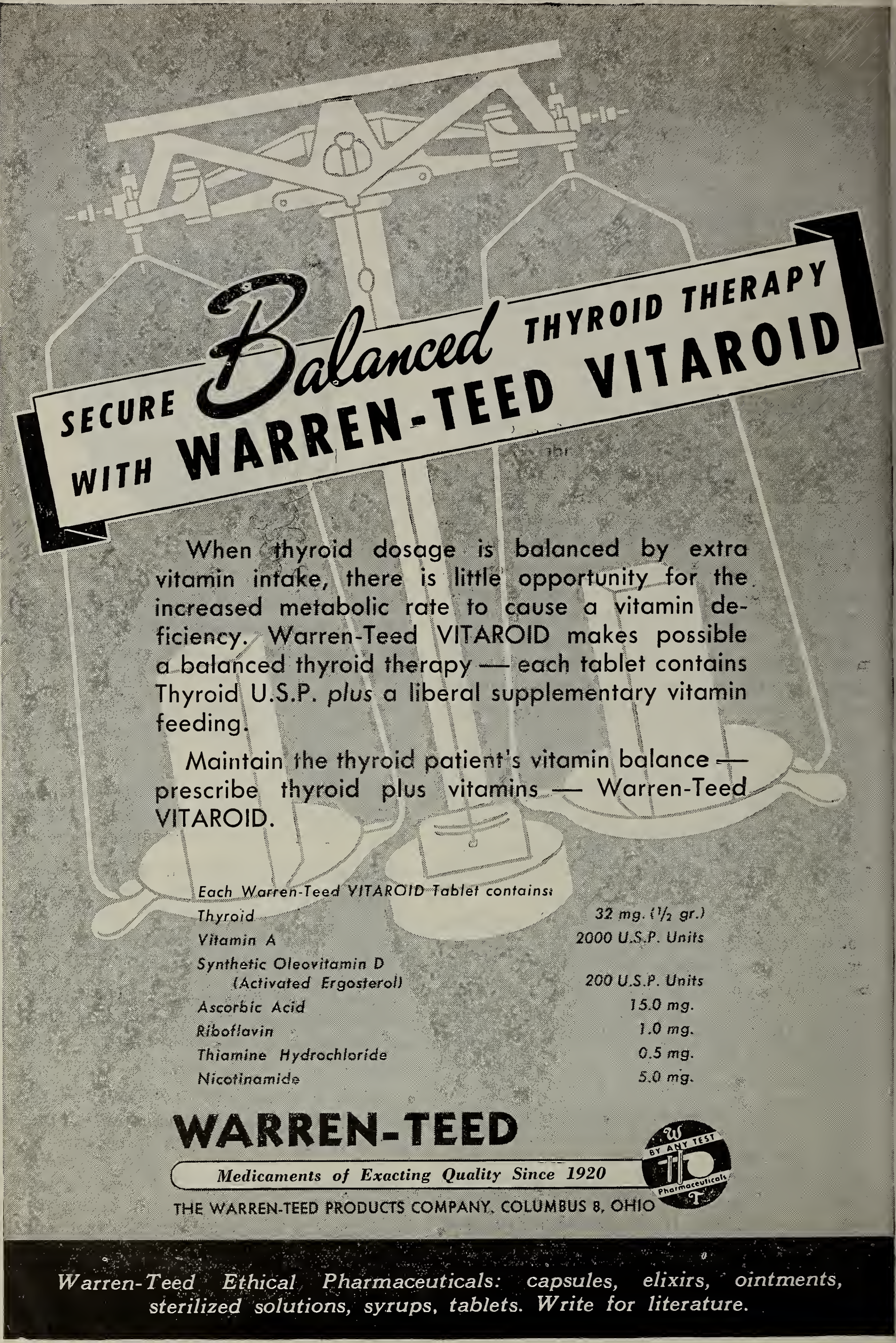
Successful treatment of cancer rests upon accurate and prompt recognition of the type and location of the cancer which is to be treated.

The only certain way to make sure of cancer is by microscopic examination of the suspected tissue by a trained specialist.

The history of quackery in cancer is a long and evil one.

Surgery, x-rays and radium are the approved treatments, one or a combination.

Cancer is uncontrolled growth of one or more cells.



SECURE *Balanced* THYROID THERAPY WITH WARREN-TEED VITAROID

When thyroid dosage is balanced by extra vitamin intake, there is little opportunity for the increased metabolic rate to cause a vitamin deficiency. Warren-Teed VITAROID makes possible a balanced thyroid therapy — each tablet contains Thyroid U.S.P. *plus* a liberal supplementary vitamin feeding.

Maintain the thyroid patient's vitamin balance — prescribe thyroid plus vitamins — Warren-Teed VITAROID.

Each Warren-Teed VITAROID Tablet contains:

Thyroid	*32 mg. (1/2 gr.)*
Vitamin A	*2000 U.S.P. Units*
Synthetic Oleovitamin D (Activated Ergosterol)	*200 U.S.P. Units*
Ascorbic Acid	*15.0 mg.*
Riboflavin	*1.0 mg.*
Thiamine Hydrochloride	*0.5 mg.*
Nicotinamide	*5.0 mg.*

WARREN-TEED

Medicaments of Exacting Quality Since 1920

W BY ANY TEST Pharmaceuticals T

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

Medical Progress in the Twentieth Century

PRESIDENT'S ADDRESS

B. LAMPTON CRAWFORD,

Tylertown, Miss.

CUSTOM OF the Mississippi Medical Association enjoins upon the president the duty and the privilege of the delivery of an address at the annual meeting of the Association; a task that is a duty because an unwritten law imposes it, and a privilege because it gives to one about to make his final official appearance the opportunity of communicating to his fellows any thoughts which he may hold significant.

Had this message been delivered a year ago, my subject would have been socialized medicine. But an aroused medical profession and the thinking public are finally realizing that the greatest profession is in danger of being destroyed and the greatest democracy is gradually being converted into a socialistic government, and are therefore determined that this shall not happen in liberty-loving America.

It is very fashionable at the time being to maintain that the health of the American people is in a deplorable condition, and one would think, to listen to the proponents of compulsory health insurance, that people are dying like flies of untended illness. But it is a fact that the medical service and hospital attention in the United States are not excelled by any nation. No country ever sent a healthier or finer armed force to war than did the United States in the recent war. The mortality rate of the wounded was the lowest ever recorded, as a result of efficient medical service.

The medical profession is one of the noblest of human calling. It has been so regarded in most countries throughout the centuries. Like other fields of endeavor, medical science has progressed very slowly until the present century.

During the past half century, the increase in scientific knowledge of the human body has been marvelous, and the understanding of the cause and cure of many diseases has made tremendous strides.

There has never been a time when the human race, the nations of the world, and our profession in particular needed intelligent, careful, thoughtful common sense leadership more than it does today. Therein lies a challenge to all of us to bring forth the best, the most substantial traits which we possess and apply them to our future problems which are being opened up by the present situation.

The first medicines were buds, flowers, fruits, roots and barks of plants. Their efficacy was due largely to their psychological effect. It has not been such a long time since the early American colonists believed in witchcraft. The Indians had their medicine man, and the Negro practiced voodooism, but the modern physician is intensely scientific and, having learned the cause and cure for a disease, artistically applies the necessary remedy.

The first man to master disease was Edward Jenner, who conquered smallpox in 1796. Pasteur revolutionized the science of medicine. He discovered Pasteur's treatment of human beings for hydrophobia. He pioneered the way into the beginning of bacteriology. When he overthrew the time-honored dogma of the spontaneous origin of disease—the shining era of modern medicine began.

Robert Koch made bacteriology a science and discovered the bacillus that caused tuberculosis.

Lord Lister, the British surgeon, saw the application of Pasteur's discoveries to surgery and elaborated the sterilizing routine that has given the world the brilliant chapter of antiseptic surgery.

Welch was a discoverer, scientific teacher, a master organizer of research and teaching, who was largely responsible for the systematic development of scientific medicine in America.

Florence Nightingale's life work in hospital reorganization and the creation of systematic training for nurses marked the turning point in the attitude of society toward hospitals and nursing.

Crawford W. Long is known as the father of ether anesthesia, the most merciful of discoveries, which released the surgical patient from operative pain and made possible a refined and deliberate operative technique.

Ehrlich laid the foundation of the theory of immunity and created a powerful chemical remedy for that most insidious and destructive social disease.

Walter Reed and his associates in Cuba proved that yellow fever spreads by the bite of a mosquito, and brought about the eradication of that dreaded pestilence from southern cities.

John B. Murphy, the Mayo brothers, Dacosta, Samuel Gross, Crile and many others blazed the way for modern surgery in America.

The great advancements which medical science have affected in the treatment of disease during the past thirty-five years are reflected in what physicians consider to be the most important drugs today compared with those used in 1910. Leading physicians listing the ten most important drugs used in medicine in 1910, chose them in the following order:

1) ether, 2) morphine, 3) digitalis, 4) diphtheria antitoxine, 5) smallpox vaccine, 6) iron, 7) quinine, 8) iodine, 9) alcohol, 10) mercury.

Tremendous advancement has occurred in the field of therapy since 1910. So much indeed that it is almost impossible to list today ten individual remedies which might be considered the most useful in medical practice. In an effort to determine what leaders in medicine might choose as most important in 1945, the editor of the *Journal of the American Medical Association* addressed a communication to some of the professors of medicine in leading medical schools. The largest number of replies put penicillin first.

Five of the physicians placed morphine first. Many added to morphine the names of some of the barbituric acid derivatives. Today, instead of single drugs, we find families.

Ether still merits a place on any list of important drugs, but the anesthetist has access to nitrous oxide-oxygen, cyclopropane, ethylene, local anesthesia, spinal anesthesia, as well as the basal anesthetics injected directly into the blood.

Digitalis still holds a place among the most important remedies.

The diphtheria antitoxin of 1910 is now supplemented by innumerable antitoxins and vaccines established as specific against certain infections.

New on the modern list are blood plasma, whole blood for transfusion, gamma globulin and other blood derivatives.

Little was known in 1910 of gland products. Today, the life-saving properties of insulin, liver extract, estrogenic hormones, adrenalin and thyroid are unquestioned.

The vitamins must be included in any significant list because of their specific virtues in deficiencies such as rickets, scurvy, pellagra, and beri beri.

Questionable on any modern list would be arsphenamine, if penicillin develops as is anticipated in the treatment of syphilis. Since malaria appears to be the most widespread of all diseases, quinine and atabrine must retain an important place.

A 1945 list of the most important remedies might be: 1) penicillin and sulfonamides, 2) whole blood, plasma and blood derivatives, 3) quinine and atabrine, 4) ether and other anesthetics, morphine, cocaine, and the barbiturates, 5) digitalis, 6) arsphenamines, 7) immunizing agents, antitoxins and vaccines, 8) insulin and liver extracts, 9) other hormones, and 10) vitamins.

Actually the choice of the most important remedy depends on the condition with which the physician is confronted. For malaria there is no question about the value of quinine and atabrine; for asthma, epinephrin or aminophyllin would seem most important; for amoebic dysentery, emetine or carbarsone would be the choice. If the patient just happens to have indigestion, baking soda might be considered the sovereign remedy.

So great then has been the advancement of therapy that the choice of the ten most important remedies in medicine would baffle any assemblage of experts.

All physicians might well take pride in the accomplishments of medicine in the past quarter century. The past decade has been more fruitful than any period in the history of medical research. One after another, glamorous new weapons against death have tumbled from research laboratories. Diseases once considered 100 per cent fatal have yielded; pneumonia, former destroyer of 100,000 American lives a year, has ceased to be dreaded.

Penicillin is the queen of all the new remedies—bacteria seem to fail to acquire resistance to penicillin as they do the sulfa drugs. The two are active against approximately the same group of diseases, with penicillin additionally effective against syphilis, heart infections and a few others.

We are now hearing about streptomycin. This gallant new drug takes up where penicillin leaves off. It attacks a whole class of microbes not touched by penicillin or sulfa; namely, influenza, certain intestinal diseases, typhoid, dysentery, urinary infections, and possibly tuberculosis.

If early trials are any indication, when streptomycin is made available to the public it should make medical history.

Swift and spectacular as has been recent progress in medical discovery, surgery has quietly kept step. Surgeons are performing operations considered impossible a short time ago.

The recent session of Congress appropriated $300,000,000 for the establishing of a cancer research laboratory, where it is expected to engage most of the leading experts of the world in an endeavor to conquer that terrible disease that is making such inroads on the health of humanity. Cancer is no respecter of persons. May those wild cancer cells meet an exploding atomic bomb.

The only effective weapon against cancer now is an early diagnosis and a sharp unsparing surgeon's knife.

What of the future of medicine? The only safe prediction is that there is no limit to the accomplishments that are possible.

"When people have learned to eat to live, instead of living to eat, when they have learned that worry makes the blood pressure run high, when there is ample room at the tubercular sanatorium to accommodate every active T. B. patient, preventing the spread of that disease, when cancer has been conquered and when heart disease has been reduced to a minimum, then we will approach a medical millenium. Preventive medicine dreams of the time when there shall be no unnecessary suffering and no premature deaths; when the welfare of the people shall be our highest concern; when humanity and mercy shall replace greed and selfishness; and it dreams that all these things will be accomplished through the wisdom of man. When young men have visions, the dreams of the old men come true."

What Socialized Medicine Means to Mississippi*

J. P. WALL, M.D.

Jackson, Mississippi

THAT great Frenchman, philosopher, dramatist and man-of-letters, Francois Marie Voltaire, said

> ". . . . Nothing is more estimable than a physician, who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which will benefit it, exercises his art with caution and pays equal attention to the rich and the poor."

Everyone has an innate urge that he may attain security, be this in the economical, social or health stratum, but down in the depths of everyone's soul there is a consciousness that such an attainment must be consistent with that freedom, so dearly bought and handed down as an imperishable heritage by our forefathers, and so strongly is the American indoctrinated with this belief that he is unalterably opposed to any form of government that bears the stigmata of the totalitarian concept.

Truly can the doctor say-

> "Lord of myself, accountable to none,
> But to my conscience and my God
> alone."

Political medicine ignores and runs counter to the basic principles that have placed American medicine in a position of unquestionable leadership, that have given to the American people the most effective and most widely distributed care available anywhere at any time. According to Surgeon General Parran of the United States Public Health Service, "Our nation's health has never been better than it is now." In 150 years the average number of years a man will live has been doubled. In 1790 the average life was thirty-five years, today it is sixty-two years. During this period typhoid fever has almost disappeared; smallpox has been subdued;

---

*Read before the public session of the Mississippi State Medical Association on May 14, 1946, Jackson, Mssissippi.

diphtheria practically conquered; pernicious anemia, tuberculosis, diabetes and many smaller ailments have been brought under control. In 1944 the United States had the highest general level of health and the lowest death rate ever known for a like number of people under similar conditions.

That American medicine can and will take care of its own housecleaning, if and when necessary, is demonstrated by the impressive elevation of the standards of medical education since the turn of the century. In 1906 medical diploma mills were rife and in many of these institutions the payment of fees, rather than scholastic attainments was the *sine qua non* for graduation.

Today American medical schools are the finest in the world—all this the work, not of the government, but the medical profession.

"American doctors", according to Governor Bricker of Ohio, "have made eminent progress in caring for our health. Medical organizations and private hospital groups are making substantial progress toward the goal of providing adequate medical and hospital care for all.

For the past three years there has been much agitation in the Congress for compulsory health insurance. This has been led by a German-born senator, Senator Wagner of New York, abetted by Senator Murray of Montana and seconded in the House of Representatives by Congressman Dingell of Michigan. These measures, if successful, would ultimately subordinate the medical profession to the unenviable status of mere hirelings of a political bureaucracy, controlled by laymen. So far these sinister attempts have failed, because an aroused American people do see the fallaciousness and the speciousness of the arguments, and are not unaware of the dire consequences that would inevitably result from such measures.

President Truman, in a recent message to the Congress on health matters, expressed his approval of such measures, but Mark Sullivan, a famous columnist, said, in speaking of the President's message,

> " . . . . . it is the most revolutionary proposal for legislation that has been sent to Congress since the National Recovery Act of 1933."

The latest of these bills is known as Senate Bill 1606, and without a doubt is state medicine in a most pernicious form. It has a preamble of rhetorical aspect; is over-flowing with expansive and disinterested humanitarianism. "To provide for the general welfare; to alleviate the economical hazards of old age, premature death, disability sickness, unemployment and dependency—to encourage and aid the advancement of knowledge and skill in the provision of health service—to make more definite provision for the needy aged, the blind, dependent children and other needy persons"—in short it provides governmental care "from the womb to the tomb."

In 1943 the National Physicians' Committee made a rather comprehensive survey, and in a study named "The Peoples' Opinion on Medical Care" has presented some very positive conclusions, the most prominent among them being the fact that the people do not want compulsory health insurance. This survey is independent and its accuracy cannot be questioned, and the overwhelming majority of our people are with the medical profession on this all important question.

This Senate Bill 1606 is to cost $12,000,000,000.00 annually, and one quarter of this astronomical figure is for "free medical care", "free hospitalization" and "free medicine" to over 110,000,000 people.

WHAT DOES THE WAGNER-MURRAY-DINGELL BILL PROPOSE?

1) To hire doctors, specialists, dentists, nurses, laboratory technicians and establish their rates of pay.
2) To designate which doctors shall be specialists.
3) To determine the number of individuals for whom any physician or dentist may provide service.
4) To determine arbitrarily what hospitals or clinics may provide services for patients.
5) In an over-all manner to furnish care for over 110,000,000 people, and this without any distinction as to whether the patient is able or unable to pay for such services.

The objectives are indeed acceptable, but the method of attaining them is decidedly objectionable.

President Truman in his address to the Congress stated that to attain this goal it would take 100 years, but the medical profession knows that these figures are entirely too pessimistic, for if the California plan could be applied to the entire nation, this result could be attained in only two years. California has faced this threat of state medicine for seven years and has successfully met its menace by undertaking a pre-payment plan of health insurance which is to be so extended that comparatively few of its people will be left to demand state medicine.

WHAT DOES POLITICAL MEDICINE MEAN FOR SICK PEOPLE?

IT MEANS:

1. Fees are paid by the government to doctors, presumably working eight hours a day. The emergency sickness must wait until the doctor is back on the job.
2. The doctor may not be the choice of the patient, but the doctor assigned by the political bureaucrat.
3. The doctor can not have a personal interest in the patient, who comes to him not by choice but by compulsion.
4. The doctor necessarily is less proficient because he is forced to prescribe remedies fixed by bureaucratic superiors.
5. Since the doctor's job is by political preferment, he is more interested in pleasing or appeasing his political bosses than in securing a cure for the patient.

To this there is one question, with an obvious answer: "Do you want medical care for the sick, to provide for bureaucrats, politicians or doctors?"

WHAT DOES POLITICAL MEDICINE MEAN FOR THE DOCTORS?

1. Shorter hours.
2. Little incentive to become skilled. Advancement would depend upon political influence rather than skill.
3. Would not develop initiative, would be in a rut.
4. Have little or no personal interest in the patient, who is compelled to visit him.
5. This eventually means incompetence, professional deterioration and forfeiture of self-respect.

President Truman's citation of draft rejections as a compelling reason for the introduction of compulsory sickness insurance in the United States loses its plausibility on comparison with draft rejections in Britain, where this insurance prevails. In this country the rejections for military service were about 30 per cent of all those examined. In Great Britain, which had had compulsory sickness insurance since 1911, the draft rejections were much higher. Rejections for the ten-year period ending with 1936, according to the annual report of that year, showed of 677,515 who were served with notice papers, 400,775 were rejected, or 59 per cent. Even allowing for the effects of a lower standard of living, if Britain after twenty-five years of sickness insurance had a rejection rate of nearly twice that of America, there seems to be little argument in the draft rejections for socialized medicine.

After V-E Day, Colonel Edward D. Churchill, Allied Mediterranean Forces Surgical Consultant, toured six German military hospitals and their areas. His overall conclusion after inspecting these areas was that German handling of wounded was about twenty years behind the American procedure. This, mark you, is a tremendous backward step from Germany's once proud record as world leader in medicine and surgery.

"This began to happen soon after Hitler saddled his brand of totalitarianism on Germany. German medicine withered and in due time the German armed forces paid, in the form of greater death tolls than they needed to have suffered."

A modified form of this socialized medicine is being tried out in England, this being the pet measure of the late Lloyd George, and it is proving very unsatisfactory because:

1. A panel can, and is, bought, after advertising its merits, in the open market by the highest bidder, such sale being determined not by the merits of the purchaser or the desire of the patient, but solely by the amount of money a prospective purchaser is willing to pay.
2. Such a trafficking in the sick man's welfare is bound to decrease the patient's confidence in the panel docter, because the patient realizes that he is just a chattel and can, and probably will, be farmed out to another and higher bidder.
3. Because of the large size of the panels, the doctor has little time for recreation, practically none for postgraduate study and consequently deteriorates in efficiency.

Another example of government's failure in the care of its medical charges is shown by the miserable record of the United States

Veterans' Administration during the past twenty years. During this time millions of dollars have been spent to provide the best medical care for the veterans. Over a quarter of a billion dollars has been spent for hospitals alone. Money has been no object, but the veteran has received notoriously poor treatment. The hospitals are overcrowded; physicians and technicians are unnecessarily loaded with red tape, and many are professionally incompetent. Notwithstanding this the government has operated the Veterans' Facilities for over twenty years, with unlimited tax funds, not a single institution has been approved by the American Medical Association for residences in chest surgery or treatment of tuberculosis. It might be added, bearing in mind the biblical injunction, "By their fruits ye shall know them."

"If the great octopus, bureaucracy, cannot care for the health of the veterans, in spite of the fact that every advantage of money and science has been at the disposal of the Veterans' Administration, how can it provide adequately for the health of 140 million people under the terms of the Wagner-Murray-Dingell bill?"

As an illustration of the care rendered by veterans' hospitals for tubercular patients as compared with that rendered by other institutions, compare the following figures:

RECORD OF TUBERCULAR PATIENTS—DISCHARGED AS "ARRESTED"

Veterans' Administration Hospitals	2.3%
Hospitals of New York State	25.6%

The taxpayer has, or should have some "say" about this matter. He is being taxed for those who are able to pay as well as the indigent.

There are some urgent needs in medicine, and among them may be enumerated:

1. There is need not for just more medical care, but more medical care of a higher quality.
2. A proper distribution of medical men and facilities.
3. Lessening cost of illness.

The eminent columnist, Dorothy Thompson, said:

"Ordinary bouts of sickness in the average family can be dealt with; the real crises are those that require hospitalization and surgical services, and those usually occur only a few times in one's life.

"Even as an individual, without benefits of insurance, one can provide for a limited amount of miscellaneous services, operation costs and seventy days of hospitalization for as low as $17.00 per year, depending upon the age and state of health, through private insurance companies. Barnum once said that a sucker is born every minute. Along with the sucker is born a politician, and nowadays a "progressive" to beat his drums for every measure that extends the power of the state even into the most intimate parts.

It might be asked who is back of the bill? The answer is very obvious. It is supported by

1. Professional welfare workers who expect to profit by it.
2. American Federation of Labor and the Committee on Industrial Organization, both of whom would thus increase their strangle hold on American liberties.
3. American Public Health Association and the National Health Association, a large percentage of whom are not even medical men and women.
4. Social Security Administration.
5. All "Leftists" who think, and rightly so, that this is a definite plan that will evaluate into the communism, that will insure the logical sequence of totalitarianism.

On the other side of the ledger, see who oppose this measure.

It is opposed by

1. American Medical Association.
2. American Academy of Pediatrics.
3. American College of Surgeons.
4. American College of Physicians.
5. American Bar Association.
6. Catholic Hospital Association.
7. National Catholic Welfare Association.
8. Central Medical Society.

As a fair and dispassionate judge, whose interests would the average citizen think would be best served by these two groups?

"Private practice of medicine is an essential part of private enterprise and at the same time is a public responsibility. It must be remembered that the socializing of medicine is a general attempt to socialize all enterprises. After all, it is the public who will be socialized and the public who will be subjected to the type of medical care resulting from bureaucratic control. Medicine always has and is now motivated by the desire to be of service to the public—to achieve this ideal, medicine must be free."

Proponents of this bill have denied the dictator charge. While there is provided an advisory council of sixteen members, to be appointed by the Surgeon General, the fact remains that the Surgeon General is under no obligation to accept their advice, and furthermore, from his decision there is no appeal, for the simple fact that the Surgeon General appoints his advisers. Despite the claim of the advocates of this bill that private practices will not be destroyed and that the patient will still have the free choice of his physician, the bill does provide that the patient can not have free choice of his own physicians under the following circumstances:

1. If his physician has refused to sign up as a government agent.
2. If his physician, although he has signed, already has the maximum number of patients allotted by the Surgeon General.
3. If the physician, whom he has chosen, cannot for any reason take care of him.
4. Furthermore the Surgeon General has the power to allocate such patients on a *pro rata* basis among the medical practitioners in any area.

Such a bill would force hospitals to reduce their standards, for the bill provides that the patient "will receive only the use of the ward or other least expensive facilities." Experience has demonstrated that during the Federal Emergency Relief Administration doctors caring for patients in the government rolls were not permitted to prescribe the drugs of their choice, but were restricted to the use of medication on certain lists. It is not a question of the medicine the doctor thinks is indicated, but rather the medicine some bureaucratic head thinks will cost the least.

"Whatever is right can be achieved through the irresistible power of awakened and informed public opinion. Our object, therefore, is not to inquire whether a thing can be done, but whether it ought to be done, and if it ought to be done, to exert the forces of publicity that public opinion will compel it to be done."[5]

The *London Lancet* in speaking editorially of the socialization of medicine in Britain said:

> "The evil to be apprehended is in brief a rigid standard of service in which the good, or moderately good, regularly defeat the best; in which red tape slows all movement; in which the sweetness of originality is wasted on a bureaucratic air; and in which the staff, sinking into mediocrity, work no longer, no harder than is expected of them . . . . all of this is inevitable under the arrangements that do not permit flexibility, variety, responsibility, enterprise and enthusiasm. To the profession of individualists the whole condition of government control is repugnant."[6]

Medicine and the profession do take the responsibility of furnishing the science, skill and art of both preventive and curative medicine. The medical profession alone is the vehicle for the application of these several services, and should never be shackled by laymen, whose sole prerequisite is political ascendency.

The American Medical Association does have a plan under which professional auspices would provide adequate care for all the people at a price they could afford to pay—this means national health program with emphasis upon nation-wide organization of locally administered prepayment medical plans sponsored by local medical societies. This is outlined in its "Ten-Point Plan", and such a plan should coördinate the activities of all state prepayment plans and

1. Should be organized as non-profit stock enterprises.
2. Should be chartered in one state (this was done this month in Illinois) and licensed to do business in all the states.
3. Should be under medical control and integrated with hospital plans.

We do not need federal interference in state and local health, but progress can and should be made by

1. Attacking the causes of unemployment and disability.
2. Improving social, economic and working conditions, generally.
3. Improving food, housing, recreation and other environmental conditions influencing health.
4. Encouraging thrift, savings and private insurance.
5. Expanding the number and coverage of voluntary medical and hospital service plans through which Americans can budget the costs of sickness and the best care can be made available for all.

Summary and Conclusions[7]

1. The meaning and implications of S 1606 can not be ignored.
2. The American people want none of the

national government's meddling in the vital field of medical service.

3. The American people know about the desire for and demand for a method for the payment of medical care costs. This must be met.
4. It is not exclusively a medical responsibility. It is also an economical problem.
5. The American people understand and believe in our effective system of personalized medical care.
6. Equally involved in the final settlement are all of the professions, the insurance companies, American Labor, all of business and all of industry.
7. Methods have been devised; mechanisms have been perfected. Plans have been tested. They have proved satisfactory to a previously unbelievable extent. They are adequate to the need. The period of experimenting is at an end.

The people have faith in their doctors, the doctors have faith in the extension and power of voluntary insurance. There is no need of this revolutionary change and there should be no penalizing of all for the benefit of the few.

What Socialized Medicine Means to Mississippi Doctors

1. Medicine would be subject to the dictates, rules, regulations and red tape imposed by bureaucratic control.
2. Medicine would constantly be at the mercy of lay control, political appointees, subject to the complaints of disgruntled patients, as well as the persistent demands of malingerers, seeking certificates of illness.
3. Public dependence would be encouraged.
4. The burdens of taxation would be increased.
5. The doctor would become a mere hireling of a layman.
6. The standards of medical practice would be lowered, and medical progress hindered with a consequent deterioration of medical skill.
7. Under the supervision of the Surgeon General there would result a regimentation of physicians and patients.
8. There would be a substituting of political for personal service.

It matters not how straight the gate,
How charred with punishment the scroll,
I am the master of my fate,
I am the captain of my soul.[8]

REFERENCES

1. Voltaire—A Philosophical Dictionary—Physician.
2. Satire, addressed to a friend—John Oldham.
3. Editorial *Collier's Weekly*—September 4, 1945.
4. Ernest E. Irons, *Journal American Medical Association*, July 7, 1945.
5. Editorial from pen of Wm. Randolph Hearst.
6. *London Lancet*—March 23, 1946.
7. Challenge to Private Enterprise, Page 17 Publication—National Physician's Committee.
8. Henley—"Echoes" IV.

*Read before the annual session of the Mississippi State Medical Association, Jackson, Mississippi, May 14, 1946.

The first wealth is health. Sickness is poor-spirited, and cannot serve anyone; it must husband its resources to live. But health answers its own ends, and has to spare; runs over, and inundates the neighborhoods and crooks of other men's necessities.

RALPH WALDO EMERSON

One out of every twenty-five babies in our country is "illegitimately born", and the mothers of these children—half the time—are themselves little more than children, between fifteen and nineteen years old.

The difficulties these unmarried mothers and their children face present a challenge to hundreds of communities.

Cavernous Sinus Thrombosis with Recovery*

REPORT OF CASE

Charles M. Murry, Jr. M.D.*
Birmingham, Alabama

Prior to the advent of chemotherapy, recovery in cases of thrombosis of a cavernous sinus were extremely rare.

It is the purpose of this paper to report a case of cavernous sinus thrombosis successfully treated with sulfadiazine, penicillin and continuous heparin infusion.

A detailed description of the cavernous sinuses and the clinical significance of their tributaries is contained in a paper by Grove. 1

A. B., a colored girl aged 8 years, was admitted to the hospital on August 27, 1945, with the following history: Nine days prior to admission she developed a small pimple on her right upper eyelid. This became larger and she picked it three days after its onset. The next day her eye was greatly swollen and tender. She was treated by her family physician, who gave her some sulfa tablets and eye drops. The family was told that her temperature at that time was 104°. The eye became even more swollen and on the morning of admission she complained of a sore neck and "talked out of her head." She had no chills and no convulsions. There were episodes of vomiting on the third, fourth, and fifth days of her illness.

Physical examination revealed a fairly well developed, well nourished colored girl lying on her right side with her knees drawn. Temperature was 103.4°, pulse 130 and respiration 24. The right eyelids were markedly swollen, soft and tender. There was marked bulbar conjunctival injection. The right pupil was large, round and did not react to light. There was paralysis of nerves III and VI. The right fundus showed slight papilledema. The mid-forehead region was swollen, tender and fairly soft but no areas of fluctuation could be palpated.

The mucous membrane of the throat was injected and the tonsils were red and enlarged. The neck was moderately stiff. There was a slight increase in breath sounds in the left base posteriorly but no rales were heard. There was marked voluntary abdominal spasm. The Kernig and **Brudzinski** were positive.

On admission the blood showed 5,100,000 red blood cells with 84 per cent hemoglobin and 28,000 white blood cells with 86 polymorphonuclear neutrophils, 13 lymphocytes and 1 monocyte per hundred cells. The urine showed a heavy trace of albumin and many bacteria per high power field. The spinal fluid showed 600 cells with 70 per cent lymphocytes. A blood culture was taken.

The child was isolated and was given 1 gram of sodium sulfadiazine intravenously and started on 7.5 grains of sulfadiazine every four hours orally with an equal amount of sodium bicarbonate. Penicillin 20,000 units every three hours was also begun. At the time of the initial spinal tap, 10,000 units of penicillin were given intrathecally.

Eight hours after admission the temperature had become elevated to 105.0°. Within twelve hours more it had dropped to 100.8°. On August 29 a report on the blood culture was received and showed no growth after eighteen hours. A second spinal tap made on August 29 showed 283 cells with 96 per cent polymorphonuclear neutrophils and 4 per cent lymphocytes. The blood Kahn was reported as negative.

On August 29 continuous intravenous heparin therapy was instituted at 3:45 P. M. At this time the blood clotting time was two minutes. This clotting time was repeated at regular intervals with the following figures:

August 29	5:45 p. m.	six minutes
	8:45 p. m.	fifteen minutes
August 30	12:45 a. m.	eighteen minutes
	4:45 a. m.	fifteen minutes
	8:45 a. m.	thirteen minutes
	12:45 p. m.	twenty-one minutes
	5:30 p. m.	nineteen minutes

In the evening of August 30 the right upper eyelid was incised and drained and a culture taken of the drainage. A pressure dressing was necessary to control the bleeding. On August 31 the sulfadiazine blood level was reported at 8.6 milligrams per cent. The urine showed a heavy trace of albumin and many amorphus crystals. The blood showed 23,000

---

*Department of Ophthalmology
Medical College of Alabama
University of Alabama, Birmingham, Ala.

white blood cells with 70 per cent polymorphonuclear neutrophils, 28 per cent lymphocytes and 2 per cent monocytes. The temperature was 100°.

At 7 A. M. on August 31 the clotting time was seventeen minutes. At 3 P. M. the needle slipped from the vein and the continuous heparin infusion was discontinued. Within four hours the blood clotting time had dropped to four minutes.

On September 4 the laboratory reported a culture of hemolytic Staphlycoccus aureus from the drainage from the right upper eyelid. On September 5 the blood culture showed hemolytic Staphlycoccus aureus after seven days' incubation. On September 6 the blood showed 8,600 white blood cells with 61 per cent polymorphonuclear neutrophils. A spinal tap performed on September 7 showed 30 red blood cells. On September 12 a blood culture, which had been taken two days previously, was reported as sterile. All chemotherapy was then discontinued.

From September 4 up to the time of discharge the temperature varied from normal to 100°. The child was discharged on September 13 to be followed in the Ophthalmology Clinic. She has been seen two times since her discharge and, with the exception of a sixth nerve paralysis, is getting along nicely.

1. Grove, W. E., Septic and Aseptic Types of Thrombosis of the Cavernous Sinus, Arch. Otolaryng. 24:29 (July) 1936.

Cancer in the Female Reproductive System*

DOUGLAS D. BAUGH, M.D. F.A.C.P.

Columbus, Mississippi

The female reproductive organs constitute favorable ground for the development of cancer by reason of the variety of highly specialized epithelial tissues present, by reason of the inherent profound physiological changes present and by reason of the trauma incident to bearing children.

Approximately two-thirds of the eighty to ninety thousand women who die each year of cancer in the United States have cancer of some part of the reproductive system. Most of these women die during or soon after the reproductive period; that is, in the prime of life and in the period of greatest usefulness to their families.

Many millions are today being spent in cancer research. Until cancer is more fully understood we must use the means already at hand in prevention and early treatment. These means are not inconsiderable.

Our ability to recognize this disease in the early stages is roughly proportional to the accessibility of the affected part. For example, the stomach is one of the most common sites for cancer, yet the stomach is relatively inaccessible, and routine x-rays, necessary in early diagnosis here, are as yet impracticable.

The female reproductive organs, however, are relatively accessible to physical examination with the equipment found in almost every doctor's office. The x-ray is not routinely needed; simple inspection and palpation are all that is necessary to recognize the suspicious lesion, and biopsy can then confirm or disprove.

As to prevention, we can do much here as compared to certain other regions of the body. Especially is this true of carcinoma of the uterine cervix, ninety-five per cent of which cases develop in those who have been pregnant. The noted gynecologist, Gellhorn, stated in 1934 that in women who have had their children by Caesarean section, not a single case of cancer of the cervix has thus far been reported.

These facts go to prove that the most prolific source of cancer here is the usually unavoidable lacerations of the cervix resulting from childbirth. While any chronic irritation predisposes to cancer, those resulting from the passage of a fetus through the cervix particularly predispose. Every physician who delivers a mother participates in making a potential cancer victim and thus has a very grave responsibility to follow up the case and eradicate any predisposing factors.

The practice of making immediate repairs and of following up our cases at the end of about two months for the purpose of clearing up any residual irritations (usually by cautery) must become more universal. The patient and the doctor are here often mutually careless about this follow-up examination, which is almost as important to the mother as the actual delivery of the child.

---

* Read at the quarterly session of the Northeast Mississippi Thirteen Counties Medical Society, Tupelo, Miss., December 1945.

The usual symptoms suggesting cancer, including disturbances in the menstrual cycle, abnormal discharges, etc., must be investigated; but since there are no reliable symptoms of early cancer, we must look for signs.

Early recognition of cancer is the only recognition of cancer worth while as a means of saving life. What are the symptoms of early cancer? The answer is: THERE IS NONE. Pain, which the layman usually associates with cancer, is most unfortunately not an early symptom. Abnormal discharges, tumors and loss of weight usually indicate at least a moderately advanced lesion. A serous, or serosanguinous discharge and intermenstrual or postmenstrual "spotting" are the earliest clinical manifestations of carcinoma.

The Mayo Clinic states that ninety per cent of the cases of cancer of the cervix that come to their attention are incurable. Carelessness, timidity, ignorance of symptoms, and fear on the part of the patient, no doubt, account for some of this percentage, but it is all too true that the majority of these lesions are beyond the early stage when the symptoms show up.

We believe that if the patient and the doctor would coöperate to the end that every woman who, between the ages of thirty and sixty, has been pregnant, would have the reproductive organs examined every six months, the mortality of cancer in these women would be only a small part of what it now is.

The logical conclusion here is obvious. The cases that we can treat most effectively are the ones that we look for and find in their incipiency before symptoms develop.

The Rh Factor in Medicine*

V. B. Harrison, M. D.

University of Mississippi,
University, Mississippi

UNQUESTIONABLY the reporting of the discovery of the Rh factor in human blood in 1940 has created more clinical interest than any other hematological discovery since Landsteiner's report on blood groups in 1900. The clinical fields primarily interested in the Rh factor are pediatrics, surgery and obstetrics.

Historical Note

In 1900 Ehrlich and Morganrath reported the experimental production of iso-antibodies in a goat. This was a fundamental discovery because normally an animal will not produce antibodies against tissues of its own species. The same year Landsteiner reported the existence of normal iso-antigens and iso-antibodies in human blood and thereby established the basis for the four human blood groups. Jansky in 1907 and Moss in 1910 classified human blood into the now recognized four groups. In 1911 von Dungern and Hirszfield discovered the existence of subdivisions in two of the four human blood groups and showed that the four groups were inherited. Landsteiner and Levine in 1927 reported the discovery of the iso-antigens M and N in human blood cells. The existence of the Rh iso-antigen in human blood was reported by Landsteiner and Wiener in 1940.

Immunological Principles

An antigen is a substance which, when introduced into the body by a route other than by ingestion, will produce a new substance, known as an antibody, and the two substances will react together in a discernible manner. Most antigens are proteins, but not all proteins are equally effective in producing antibodies. As a general rule, an animal will produce antibodies against the tissues of an animal of a different species (hetero-antibodies), but it will not produce antibodies against the tissues of another animal of its own species (iso-antibodies). However, acquired and normal iso-antibodies do exist, although they are rare.

Normal and acquired antibodies, even those in the same category of action, vary qualitatively and quantitatively, especially in their titers or concentrations, in their duration or span-of-life in the body of the host, and in their temperature-of-reaction in vitro. For example, normal antibodies usually have a low, constant titer, a permanent existence, and they react best at relatively low temperature, while the acquired antibodies usually have an initially high titer which gradually falls, a limited body existence, and they usually react best at body temperature.

The important human normal iso-antigens are those found in the red blood cells, namely, those designated "A" and "B", "M" and "N", and "Rh". The only normally occurring iso-antibodies of importance are those found in the blood serum and, sometimes, in the tissues of man, namely, the **alpha** and **beta** iso-antibodies.

The A and B iso-antigens and the **alpha** and **beta** iso-antibodies are related in certain ways to form the four blood groups. As the iso-antigen A reacts with the iso-antibody **alpha** and the iso-antigen B reacts with the iso-antibody **beta**, it is obvious that a given iso-antigen and its specific iso-antibody cannot co-exist in an individual. The combination of these iso-antigens and iso-antibodies in the four blood groups are, as follows: (1) A plus **beta**, (2) B plus **alpha**, (3) A and B plus no iso-antibody, and (4) no iso-antigen plus **alpha** and **beta**. The following chart illustrates these facts and the percentage of each group in the average white population:

CLASSIFICATION, COMPOSITION and PERCENTAGE OF BLOOD GROUPS

Landsteiner	Jansky	Moss	Iso-antigens in RBC	Iso-antibodies in serum	Population distribution
O	1	IV	——	**alpha and beta**	45%
A	2	II	A	**beta**	41%
B	3	III	B	**alpha**	10%
AB	4	I	A and B	——	4%

The cross-reaction schedule is, as follows, with the pluses indicating agglutination and the minuses indicating no agglutination:

BLOOD GROUPING REACTION CHART

Cells from group-	Serum from group- O alpha & beta	A beta	B alpha	AB zero
O	—	—	—	—
A	+	—	+	—
B	+	+	—	—
AB	+	+	+	—

As group O blood contains no iso-antigen, its cells will not be agglutinated by the iso-antibodies of any other group, therefore, group O is designated as the universal donor group. As group AB blood contains no iso-antibodies, its serum will not agglutinate the cells of any other group, therefore, group AB is designated as the universal recipient. The universality of group O and AB is true only when their iso-antibody titer and that of the other participating party are relatively low and when the blood is given or received slowly.

The iso-antigens M and N occur in the red blood cells, either individually or in combination, that is, as M, N, or MN. Everyone has one or the other or both of these iso-antigens in his red blood cells. There are no correspondent iso-antibodies in the human blood serum for these iso-antigens and usually a person does not develop acquired iso-antibodies as a result of blood transfusion. Therefore, while these factors are important in legal medicine, they have small significance in clinical medicine. While the M and N factors are common to all blood, they bear no relationship to the order of the four regular blood groups and their iso-antigens and iso-antibodies.

The Rh iso-antigen of human red blood cells is so-called because it reacts with hyper-immune serum prepared by immunizing guinea pigs with the red blood cells of **rhesus macasus** monkeys. About 85% of the population have Rh iso-antigens in their red blood cells, and the distribution of the Rh iso-antigen is fairly uniform within the four regular blood groups and by sexes. Under normal conditions, human blood serum contains no specific anti-Rh iso-antibodies. The Rh factor is transmitted by heredity as a simple mendelian dominant trait.

While the Rh factor is an iso-antigen, and one of not high antigenic quality, the repeated introduction of Rh positive blood into a Rh negative person will stimulate the production of specific anti-Rh antibodies in the recipient. It is the presence of these anti-Rh antibodies in the body of a Rh positive individual which causes the conditions attributable to the Rh factor.

The Rh Factor in Pediatrics

The chief interest of pediatrics in the Rh factor is due the part that the Rh factor plays in a hemolytic anemia of the newborn known as erythroblastosis foetalis. The chief characteristics of erythroblastosis foetalis are progressive intra-uterine hemolysis of fetal blood and familial incidence. Clinically the disease may be manifested in one of three forms, namely (1) fetal hydrops, the most serious form, (2) icterus gravis, the most common form, and (3) a mild, frequently unrecognized anemia of the newborn. The disease is relatively rare; about one case occurring in every two or three hundred full-term deliveries. However, the same mechanism causing erythroblastosis foetalis may explain the cause of many early and late fetal deaths.

The cause of erythroblastosis foetalis is an Rh positive fetus in an Rh negative mother. The Rh negative mother is immunized transplacentally by the Rh positive fetus. The exact method of transplacental immunization is not altogether clear, but two possibilities occur, namely: 1) There exists a placental defect which allows a maternal transfusion of fetal blood or, 2) After intra-fetal physiological destruction of fetal erythrocytes, some of the fetal Rh factor passes through the placenta into the maternal circulation. In either event, the Rh negative mother responds to the parenteral introduction of this foreign protein by the production of an appropriate antibody. This maternally produced anti-Rh antibody is transferred across the placenta to the fetal circulation where it reacts with the fetal Rh positive erythrocytes to cause their destruction. Thus, there ensues a vicious cycle of maternal hyper-immunization and fetal hemolysis and hyper-hematopoiesis.

Since the Rh factor is inherited as a simple mendelian dominant, the prospects for an Rh positive child is great, if either parent is Rh positive. This is especially true since the Rh factor is evenly distributed between the sexes and the four blood groups. Briefly, the expectancy of an Rh negative offspring from Rh positive and negative parents is, as follows:

Rh+ x Rh+	—	7.6%	of children Rh—
Rh+ x Rh—	—	27.6%	of children Rh—
Rh— x Rh—	—	100.0%	of children Rh—

Not all of the cases of erythroblastosis foetalis are explained by the Rh factor, that is, Rh+ fetus and Rh— mother. In some cases the reverse situation holds true, that is, the fetus is Rh negative and the mother is Rh positive. In most of these cases the blood serum of the Rh positive mother contains an antibody which reacts with the cells of the Rh negative child and with the cells of the Rh negative father. Such a serum has been designated anti-Hr, a reversal of the Rh letters, because the reaction is a case of the Rh factor in reverse.

The intra-uterine treatment of erythroblastosis foetalis is unsatisfactory at present. The neonatal treatment of the erythroblastotic infant is by transfusion. In the transfusion treatment of the erythroblastotic infant, more than ordinary laboratory and technical care is indicated. First, it should be remembered that the infant's blood is full of anti-Rh antibody obtained from the mother before delivery. Therefore, if Rh positive blood is used in the transfusion, the donated cells will be hemolyzed by the anti-Rh antibodies in the infant circulation. However, some authorities advocate giving large doses of Rh positive blood with the exception of sacrificing some of the donated cells in order to exhaust the anti-Rh antibodies in the infant circulation. Such a practice is not without risk to the child, for it places an additional load on an already over-burdened kidney and liver. The practice of using the mother's blood for neonatal transfusion is contra-indicated in this disease, because to do so will introduce additional anti-Rh antibodies into the infant's circulation and precipitate a hemolytic crisis. The desirable blood would be that from an Rh negative male or nulliparous female who has never had a blood transfusion. Such blood, if it were otherwise compatible, would not likely contain anti-Rh antibodies and the cells would support the infant's circulation. If the correct blood group donor is not available, a group O, Rh negative may be used.

The Rh factor in Surgery

Blood transfusion is now firmly established as a therapeutic measure and it is widely used on the least provocation. It is a well recognized fact that certain fundamental principles of blood compatibility and clean equipment must be scrupulously observed to avoid patient reactions. However, it has been observed that in certain cases of multiple transfusions heretofore unexplained reactions have occurred. It is now recognized that many of these reactions are due to the Rh factor.

The mechanism of the Rh factor reaction in transfusion cases is similar to that causing erythroblastosis foetalis. The recipient of the transfusion is an Rh negative individual and, thus, he is responsive to the antigenic stimulation afforded by the donated Rh positive blood cells. Since, as previously stated, the Rh factor is not a powerful antigen, several transfusions are usually required to produce enough anti-Rh antibodies to cause a reaction on subsequent transfusion of the Rh negative recipient with Rh positive blood. Of course, it is the donated blood which is hemolyzed and not that of the recipient, however, the end result on the recipient is the same as though his own cells were destroyed. At this point it is well to warn that the usual methods employed for pretransfusion blood grouping and cross-matching of bloods are not sufficient safe-guards against the Rh factor.

If both the recipient and the donor are Rh positive, no reaction due to the Rh factor will occur because, according to immunological fundamentals, an individual will not produce antibodies against its own tissue. If both the recipient and the donor are Rh negative, no reaction due to the Rh factor will occur because the Rh antigen is not present. However, if the recipient is Rh negative and the donor is Rh positive, and several transfusions take place, the recipient may develop anti-Rh antibodies and react.

In some cases an immediate transfusion reaction due to the Rh factor or the Hr factor may occur. There are three mechanisms for such reactions. First, the recipient may be an Rh negative person who has been previously immunized to the Rh factor by previous transfusions or pregnancies and now receives Rh positive blood. Since anti-Rh antibodies are present in the blood of such a recipient, the donated Rh positive blood precipitates a reaction. Secondly, the recipient may be an Rh positive person who receives blood from a previously immunized Rh negative donor. Since anti-Rh antibodies are present in the donated blood, they react with the Rh positive cells of the recipient. Thirdly, the recipient may be Rh negative and receive blood from an Rh positive donor whose blood contains anti-Hr antibodies. Such a donor must be an Rh positive woman who has borne an erythroblastotic child.

As a preventive measure, the recipient and donor in a transfusion operation should be tested for the Rh factor, in addition to the usual blood grouping and cross-matching blood test. Also, a carefully taken history on both the recipient and prospective donor will reveal potential reactions. First, all Rh negative women who have borne Rh positive children, especially if there have been abortions, stillbirths or erythroblastotic infants, should be eliminated as prospective donors to Rh positive recipients. Secondly, all Rh negative persons, regardless of sex, who have been previously transfused, especially if there is a history of transfusion reaction, should be eliminated as prospective donors to Rh positive recipients. Thirdly, never knowingly use an Rh positive person as a blood donor to an Rh negative recipient. This is necessary to avoid building up anti-Rh antibodies in the Rh negative recipient. Fourthly, transfuse like Rh blood. With the exception of the above contraindications, a Rh negative blood may be donated to both Rh positive and Rh negative recipients. In the case of an emergency, one may use Group O, Rh negative blood as a universal donor, if there is any doubt, give the recipient a preliminary small test dose of the blood to be donated. A reaction from a small test dose of blood will warn the surgeon of the prospects for a serious reaction if the transfusion is given.

The Rh Factor in Obstetrics

The Rh factor in obstetrics is related to the Rh problem of pediatrics and surgery, that is, it has the same fundamental basis.

Recent attention has been focused upon the Rh factor as a cause of habitual abortion. The usual history is that after one or two normal or only slightly complicated pregnancies, the woman aborts all subsequent pregnancies. The abortion occurs after the twelfth to the twentieth week of pregnancy. The anti-Rh antibodies usually appear from the twelfth to the twentieth week of pregnancy. The evidence in favor of the Rh factor being the causative agent is strengthened if the woman is Rh negative and the husband and the living children are Rh positive. Of course the demonstration of the presence of anti-Rh antibodies in the blood serum of the woman is confirmatory, but such a test is not easily performed. So far, there is no remedy for habitual abortion due to the Rh factor.

Transfusions in a pregnant woman or in a recently pregnant woman should receive careful consideration. If there is even the slightest reason to suspect an Rh factor basis for the condition necessitating the transfusion, the case should be carefully studied before transfusions are employed. If the precautions stated above for transfusion operations are observed, serious reactions may be avoided.

The Rh Test

The usual, simplified slide test performance at room temperature for determining the four regular blood groups is not applicable to the Rh factor. Unfortunately, no similar simplified test has been evolved so far for testing the Rh factor. This, and other inherent difficulties in the Rh factor test, is inhibiting its wider clinical application.

In the first place, a universally available, high potency, anti-Rh testing serum is not at hand. Artificially prepared rabbit or guinea pig antisera against rhesus macaeus erythrocytes, while theoretically ideal, contains accessory antibodies which must be removed before use. So far, the best testing sera are derived from mothers who have recently borne erythroblastotic children or aborted erythroblastotic fetuses. While anti-Rh testing sera are commercially available, their high cost per test basis and their uniform potency and specificity discourages their popular use.

To perform the test for the Rh factor, a sample of the blood to be tested is mixed with an anticoagulant and the cells and serum are separated by centrifuging. The separated cells are washed three times with physiological saline and a one or two per cent cell suspension in physiological saline is prepared. Next, the anti-Rh testing serum is diluted to its titer, as indicated on the label, with physiological saline. Two drops of the diluted serum and one drop of cell suspension are added to a 75 mm. x 7 mm. test tube and after mixing, the tube is incubated at 37°C. for one hour. Known Rh positive and Rh negatives should be tested simultaneously as controls. At the end of the incubation period, the tubes are removed from the water bath and the cell patterns in the bottoms of the tubes are read with the aid of a concave mirror, according to the technique of Landsteiner and Wiener. If no reaction has taken place, the tubes should be re-incubated for another hour. The second incubation will often reveal a positive test for cells previously read as negative.

REFERENCES

Andujar, John J. Practical Applications of the Rh Factor to Obstetrics. *Texas State Journal of Medicine,* July 1944.

Carter, Bettina B., M. S.: Loughrey, Joseph, M. D. A Method of Demonstrating Anti-Rh Agglutinins in Cases of Erythroblastosis Fetalis. *American Journal of Clinical Pathology,* Dec. 1945.

Carter, Bettina B., M. S.: The Production of Rh Antiserum in Guinea Pigs Through Inoculation with Ruman Red Blood Cells. *American Journal of Clinical Pathology,* July, 1945.

Davidson, I. M.D. Rh Antibodies. *American Journal of Clinical Pathology,* March, 1945, Vol. 15, No. 3.

Haberman, Sol: Hill, J. M. The Clinical Significance of the Rh Factor. Its Importance in Erythroblastosis Fetalis. *Texas State Journal of Medicine,* July, 1944.

Hill, Joseph M. and Haberman, Sol. The Clinical Significance of the Rh Factor. Its importance in Transfusion Reactions. *Texas State Journal of Medicine,* July, 1944

Levine, Philip, M.D. Isoimmunization by the Rh Factor—A New Cause of Fetal and Neonatal Morbidity. *Human Fertility,* Sept. 1944, Vol. 9, No. 3.

Moureau, Paul, M.D. Heredity of the Agglutinogen Rh. *American Journal of Clinical Pathology,* Sept. 1945.

Seldon, Thomas H. : Lundy, John S.: Adams, Charles R. The Rh Factor.

The Lancet, Nov. 4, 1944, Editorial, *A Year's Work on the Rh Factor.*

Wiener, Alexander S., M.D. The Rh Blood Types and Some of Their Applications. *American Journal of Clinical Pathology,* March 1945, Vol. 15, No. 3.

When a man is no longer anxious to do
better than well, he is done for.

—Benjamin Haydon

Dr. Matas Would Outlaw Nazi Physicians

The following article by Meigs O. Frost in the Sunday issue of the deep South's greatest daily paper, the *Times-Picayune,* will be read with both interest and profit. Rudolph Matas typefies the medical spirit of this great Southern city. He is a native of Louisiana, but perhaps the most outstanding medical citizen of the world. Dr. Matas is so eloquent of tongue, so kind of heart, so powerful of intellect, so versatile in education and so profound in wisdom that any doctor can ill afford to miss one word that falls from his lips.

OUTLAW NAZI PHYSICIANS

By Meigs O. Frost

Dr. Rudolph Matas, who has fought disease for 65 years, starts greatest fight of his career to purge his profession of Nazis found guilty of crimes of horror.

A WORLDWIDE WAR to outlaw from their profession all physicians and surgeons guilty of the bestial Nazi crime of using human beings for experimental guinea pigs has been declared by Dr. Rudolph Matas, world-honored New Orleans surgeon.

Thousands of German and other doctors who teamed with the Nazis through their years of power, adding unspeakable and obscene chapters to the book of horrors that ended in World War II, will be barred for life from the practice of their profession if Dr. Matas and his associates win the fight they are launching.

These physicians and surgeons, battling to purge their profession of its ghastliest prostitution, have the organization that can bring them victory. It is the International Society of Surgery, to the English-speaking world; the Societe Internationale de Chirurgie at its oldtime headquarters in Brussels, Belgium. Dr. Matas was its president in 1938, the last peaceful year before Hitler in 1939 hurled the armed might of Nazi Germany into Poland, and started World War II. The society normally meets every three years. It never has met since Dr. Matas delivered his presidential address in Brussels. World War II made meeting impossible.

The next session of the society is scheduled for early in 1947 at London, England, under the auspices of the Royal College of Surgeons and at the invitation of British surgeons. That is when the wrath of all decent, ethical physicians and surgeons is scheduled to burst upon the heads of the Nazi-subservient physicians and surgeons in Germany and elsewhere who followed the beastly Nazi doctrines.

"Those physicians and surgeons among the Nazi followers committed the greatest crime that can be committed in medicine," thunders Dr. Matas. "Nobody can read the authenticated reports of their callous treatment of human beings, prisoners of war or enslaved populations of defeated nations, without horror. Deliberately they used these human beings as the subject of experimentation that resulted in pain and suffering, sickness and death, in innumerable cases.

"They violated the Hippocratic Oath every physician must take. They violated the three great Hippocratic Maxims that are the foundation of the honor of our profession:

" 'Sometimes we cure.

" 'Sometimes we relieve.

" 'Always we comfort.'

"Those damnable Nazi doctrines rotted the body of the German medical profession to its heart. Those Nazi-subservient physicians and surgeons committed crimes against humanity as well as against their own profession. They utilized patients and prisoners of war and subject peoples as vile animals. They tried out on human beings experiments that never should be tried on man. Our profession is ancient and honorable. It must be purged of beasts such as these."

Dr. Matas is working day and night at his home, 2255 St. Charles Avenue, to get that purge under way. He is acting secretary and treasurer of the United States National Committee of the International Society of Surgery that is working to return the international society to its global functions based on its old headquarters at Brussels, Belgium, as before.

His associates on that committee are such distinguished American surgeons as Dr. Elliott C. Cutler, Boston, Mass., chairman; Dr. Eugene H. Pool, New York; Dr. Arthur W. Allen, Boston. New York headquarters have been established at the New York Academy of Medicine building.

"The world's statesmen are trying to make the United Nations function," says Dr. Matas. "Surgery issues a challenge to statesmanship. We have made surgery function around the globe through the International Society of

Surgery. Look into any operating room, anywhere. You see the same white robes, the same white masks, the same shining instruments. The color of the skin does not matter there. All are alike. All are dedicated to the same high purpose: to cure, to relieve, to comfort. That was the ideal of Hippocrates more than 2000 years ago. And that is why men like these Nazi-dominated surgeons and physicians, who befoul so great an ideal, must be exiled from their profession as outlaws by all decent medical men everywhere."

Dr. Matas has been fighting disease and death for sixty-five years. But in his sixty-sixth year he has taken up his greatest fight: to cut the cancer of Nazi doctrine and Nazi practice out of the profession to which he has dedicated his whole life.

Literally he has received every honor the surgeons of the world could bestow upon him. Almost daily he ministers to patients who crowd his office from near and far. In his eighty-third year he performed a delicate throat operation other doctors admit "nobody wanted to undertake," and it was successful.

"The Matas Operation," named for him, developed by him, is surgery's classic operation for aneurisms; the incredibly delicate surgery of enlargements of the veins and arteries called "vascular surgery."

Son of a doctor, he was born September 12, 1860, at Bonnet Carre, La., just above New Orleans. His early education sounds fantastic: Paris, France; Barcelona, Spain; Brownsville, Texas; Matamoros, Mexico; Soule's College, New Orleans; Tulane University, where he won his M.D. at the age of twenty. He started to practice as a physician, surgeon, pharmacist, able fluently to speak, read and write English, French, Spanish and the latter's Catalan dialect.

He learned his Latin from an exiled Russian anti-Czarist prince in Mexico, who "was intoxicated with the splendors of ancient Roman oratory," his Greek from a Presbyterian missionary in Mexico, with whom he read the New Testament; more Latin from a Catholic priest in Mexico; his botany in French with a French textbook from an ex-consul of France in Mexico; his physics and zoology in French from French textbooks and a French-speaking teacher in Mexico; but he enshrines the memory of Miss Mary Butler, his teacher in the public schools of Brownsville, Texas.

The night he won prizes in the humanities, physics and botany, at graduation exercises, College of St. John, Matamoros, Mexico, they were presented by the Mexican general in command of all military forces there. In the midst of the ceremonies the audience was electrified by heavy, continuous bursts of rifle-fire. All knew a revolution was about to break. Only the general knew he had it under control in Matamoros. He stepped forward and calmed a crowd about to stampede, with "Don't worry. All that shooting is in your honor. Those are many soldiers firing salutes to celebrate your great day here at the College of St. John."

Dr. Matas chuckles at memories like that one. Memories of his graduation as an M.D. at Tulane in 1880 bring gentle smiles, too.

"Medical examiners of today don't know what happened sixty-five years ago," he asserts. "But we were good at anatomy. I could go out into the fields and gather medicines. What we knew made us good general practitioners. We had our seven branches of medicine from our Neil & Smith Compend, long since out of print. It was our 'multum in parvo,' our 'vade mecum.' I can see yet its pages on anatomy, physiology, chemistry, modern medicine, therapeutics, surgery, obstetrics. Neil & Smith, lectures, clinics, turned out some fine doctors.

"There are all kinds of doctors. But you've got to love it, to be inquisitive, to observe, to be worthy of that M.D. And in the whole history of the world, medicine and surgery have made no such progress as they have made from the time I started to practice up to now.

"We have defeated disease after disease. But new diseases are cropping up. There is a limitation of population for this world, without a doubt. Some disease always comes to take the place of a disease we have conquered. The world is always changing.

"But the honor of a physician and surgeon does not change. And the Nazi-dominated doctors who have befouled it must be outlawed and exiled."

Patience is bitter, but its fruit sweet.

—Rousseau

The Mississippi Doctor

Published monthly at Booneville, Mississippi.
Entered as second-class matter, January 19, 1926, at the post office at Booneville, Miss., under the Act of March 3, 1870. Annual subscription $1.00.

The journal with a vision which encourages a plan of delivering modern medicine to the masses at less cost to the individual and more profit to the practitioner. It champions the community hospital, the hub around which this service must be built.

W. H. ANDERSON, M.D. .... Editor-in-Chief
MILDRED P. ANDERSON .... Assistant Editor

David E. Guyton, Blue Mountain College ...... Poet

C. H. Lutterloh, M. D. .... President
Hot Springs, Ark.
J. C. Pennington, M. D. .... President-Elect
Nashville, Tenn.
L. S. Nease, M. D. .... Vice-President
Newport, Tenn.
John Archer, M. D. .... Vice-President
Greenville, Miss.
John A. Moore, M. D. .... Vice-President
El Dorado, Ark.

A. F. Cooper, M. D. .... Secretary-Treasurer
Memphis, Tenn.
Gilbert J. Levy, M. D. .... Director of Exhibits
Memphis, Tenn.

E. M. Holder, M. D. C. R. Crutchfield, M. D.
F. M. Acree, M. D. H. King Wade, M. D.

Address all material for publication to W. H Anderson, M.D., Booneville, Mississippi.

Next year the state meeting will be held in Biloxi on the first Tuesday in May, and it will be a three-day session as usual.

The recent session of the association was said to be by old observers the best in spirit and finest in purpose ever held.

We appreciate our exhibitors. They have the same purpose to serve as do the doctors. Everything else being equal, we trust you will trade with those who come to our meetings and who advertise in the journal.

The plan is for the Mid-South to open next February with another good session. This meeting is very popular with the doctors, for they get a review of medicine and surgery in four days and nights.

Don't miss the meeting of the Northeast Mississippi Medical Society at Booneville on June 11. Drs. Hollis Johnson of Nashville, Tenn., and Oscar W. Bethea of New Orleans, Louisiana, will be the guest speakers. Our state president, Dr. Avent, of Grenada, will be with us also.

Read carefully the addresses of President Crawford and Dr. Percy Wall. They are food for thought.

The Mississippi State Medical Association came back this year with renewed determination for the future. It met at the Robert E. Lee Hotel in Jackson for a busy two-day session, May 14-15. Dr. B. Lampton Crawford of Tylertown was the able president. Dr. J. K. Avent of Grenada was installed as president at the close of the session following the election of Dr. Paul Gamble of Greenville as president-elect. The able and faithful Dr. J. Rice Williams presided as speaker of the house with his usual efficiency. Dr. M. Y. Dabney of Birmingham, a native of Mississippi, an outstanding gynecologist, editor of *Southern Medical Journal,* and now president of the Southern Medical Association, delivered the annual oration on president's night. Mr. C. P. Loranz, secretary-manager of the Southern Medical Association, visited the association to announce the meeting of the Southern this year in Miami, Florida, Nov. 4-8.

The past-presidents of the Central Medical Society entertained the past-presidents of the state with a breakfast and a luncheon. Twenty-four past-presidents were listed by the secretary with nineteen present for breakfast on Tuesday morning. Dr. W. W. Crawford of Hattiesburg is the oldest past-president from the standpoint of service, and his brother, Lampton, the youngest. The absence of Dr. G. S. Bryan of Amory who has been ill for some time was on everyone's tongue. A telegram was sent to him and flowers also by wire.

On Tuesday afternoon a dinner was given to the Half Century Club by Dr. W. H. Anderson of Booneville. An honored out-of-town guest was Dr. Jere Crook of Jackson, Tenn., who has been practicing for fifty-two years but is yet young. It was a joy to have him present. Dr. W. H. Scudder of Maryville was the oldest man present, now in his eighty-fourth year, with a record of continuous practice for fifty-nine years at the same place. The picture of the group is elsewhere in the journal. Dr. W. A. Evans of Aberdeen was elected leader for the group, with the editor of the journal as sponsor.

Recently a friend who lived nearby suffered a ruptured gallbladder while in a city of an adjoining state. He went to the hospital, was operated on, and after several stormy days came through all right. He came in to be dressed and looked over and remarked that his hospital and surgeon's bill was $1100 and commented on the splendid treatment he received. We asked him why he did not go to the Veterans Hospital (he was a World War I veteran) and he replied: "I did not have much money, but had rather pay out eleven hundred as I did than go to a veterans hospital." It seems that veterans might be allowed to go to the hospital of their choice, to the doctor of their choice, and be treated as were the wives of the privates in the army and let the government pay the bills. Eighty per cent of the veterans need treatment all along that could be given by the local doctors. Letting a veteran use the doctor of his choice and the home hospital might be the best plan for the patient, for the doctor and for Uncle Sam also.

§

Dear Dr. Anderson:-

I am getting some response to my request for pictures of doctors in Mississippi, but as yet no marked enthusiasm has been manifest. I am making this appeal through the columns of the *Mississippi Doctor,* for volunteer helpers in this work. Some few doctors have offered to collect pictures of all doctors in their respective counties and then to forward same to me at Amory—some few have done so already. I am appealing, now, for such a volunteer in EVERY county in the state. This would not be a difficult task, and I would appreciate it very much. It will save me the necessity of writing many hundreds of letters. This is a tremendous undertaking, but it is a labor of love on my part. When this collection is complete it will be the property of the State Medical Association and will be placed on permanent display in the State Department of Archives and History.

G. S. Bryan

Let every doctor heed the above request from Dr. G. S. Bryan. Drs. W. A. Evans and Felix J. Underwood are helping him right along. Dr. Evans estimates that Dr. Bryan should have five thousand pictures in his collection within a rather short while if all the doctors coöperate with him. A good picture and a brief write-up for every doctor now living and for every one who has lived and served in the state is the goal. This hobby has a distinct value. It is also a fine labor of love on the part of Doctor Bryan. Let us heed the request of this beloved member of the Half Century Club, who is no longer able to attend the state meetings.

§

APPRECIATION

I know of no channel, other than *Mississippi Doctor,* through which I can express my appreciation of the beautiful flowers sent me —and the friendship and love that prompted the sending—by the members of the Past-President's Club. There are no words that can adequately express my love for the members of this club, both individually and collectively. How I wish that I might look into the eyes of each member, for when "eyes speak love to eyes that answer back" there is no need for spoken words.

I also wish to acknowledge the receipt of telegrams from the full membership of the Association as well as one from the Half Century Club, and to thank them from the depths of my heart for the sentiments conveyed by these telegrams.

May God bless and prosper every one of you is my sincere wish and earnest prayer.

I am yours sincerely as long as life may last,

G. S. Bryan.

WAR RELIEF APPEAL

In Yugoslavia 1,487,000 children are in desperate need of medical care, 150,000 known victims of tuberculosis, 1,000,000 persons infected with malaria. In Macedonia half the population has malaria. In Yugoslavia as a whole one out of 25 has tuberculosis and the death rate from tuberculosis is **ten times** higher than in the United States. In pre-war Yugoslavia, the infant mortality rate was the highest in Europe, with 155 dead for every thousand living births as compared with 56 in the United States. Now the infant mortality rate has risen to 170 dead out of every thousand living births, while in Greater New York, infant mortality has decreased to 35 per thousand births, in Sweden to 30, in England, to 38.

In all of Yugoslavia there are but 12,000 hospital beds. For the 150,000 people with active tuberculosis who require hospitalization, there are only 1,500 beds. In mountainous Yugoslavia with its shattered communications there is but one doctor to every 5,000 people and in isolated communities it is nearer to one doctor to every 10,000. Greater New York has one physician to 450 persons. Tuberculosis-ridden Yugoslavia has but two chest surgeons. These are the figures.

The American Committee for Yugoslav Relief, 235 East 11th Street, New York City, is conducting a campaign for $5,000,000 to provide some part of these medical necessities.

News and Comment

DR. GAMBLE TO HEAD MEDICAL ASSOCIATION

Dr. Paul Gamble, Greenville, took office as president-elect of the Mississippi State Medical Association following his election at the May 15 session.

Dr. J. K. Avent, Grenada, was inducted as president, having served the past year as president-elect.

Other officers elected included Dr. C. H. Crawford, Tylertown, retiring president, as vice-president for the Southern District; Dr. H. F. Garrison Jr., Jackson, vice president, Central District, and Dr. E. A. Brown, Water Valley, vice president, Northern District. Dr. J. G. Thompson, Jackson, was named historian, and Dr. W. H. Anderson, Booneville, editor. Associate editors are Dr. L. L. McDougal Jr., Tupelo, and Dr. Stanley A. Hill, Corinth.

Dr. J. Rice Williams, Houston, was elected speaker of the House of Delegates; Dr. E. Leroy Wilkins, Clarksdale, treasurer, and Dr. T. M. Dye, Clarksdale, secretary.

Council members remain the same.

Delegates to the American Medical Association are Dr. Felix J. Underwood, state health officer, and Dr. J. P. Wall, Jackson.

A resolution adopted by the association deplored asserted "politics in certain state hospitals and institutions," and a committee of three authorized to investigate the charges. No institutional needs were mentioned in the resolution.

THE FOLLOWING PHYSICIANS HAVE RETURNED FROM MILITARY SERVICE

The following physicians have returned to Mississippi from military service:

Dr. W. O. Biggs, Osyka; Dr. Paul B. Brumby, Lexington; Dr. E. A. Bush, Laurel; Dr. Isaac Coe, Clarksdale; Dr. W. D. Fitzgerald, Ruleville; Dr. Gerard J. Frederic, Pascagoula; Dr. Harry G. Fridge, Richton; Dr. Raymond Frederic Grenfell, Jackson; Dr. C. H. Heywood, Canton; Dr. W. A. Hull, Indianola; Dr. R. D. Kirk, Jr., Tupelo; Dr. James F. Lewis, Columbus; Dr. J. F. McDonough, Pascagoula; Dr. E. M. Meek, Greenwood; Dr. T. S. Robertson, Jackson; Dr. B. L. Robinson, Meridian; Dr. R. E. Shands, New Albany; Dr. V. L. Terrell, Columbia.

Dr. T. J. Barkley, Belzoni; Dr. S. H. Barron, Columbia; Dr. R. E. Cunningham, Jr., Florence; Dr. L. M. Ferris, Vicksburg; Dr. G. S. Hicks, Natchez; Dr. J. B. Howell, Jr., Canton; Dr. A. T. Nadeau, Jr., Grenada; Dr. E. E. Sheely, Gulfport.

PIKE COUNTY MEDICAL SOCIETY MEETS IN McCOMB

The Pike County Medical Society held its regular bi-monthly meeting on Thursday, May 2 at the McColgan Hotel in McComb. Following a delicious chicken dinner members and the business and educational portion of the guests adjourned to an upstairs lounge where the program was conducted.

Dr. L. W. Brock, president, of McComb presided over the meeting. At the termination of a short business session the guest speaker, Dr. J. O. Weilbacker, assistant professor of medicine, Louisiana State University Medical School, New Orleans, Louisiana, and chairman of the medical division, New Orleans Medical Foundation, was presented to the audience by Dr. A. V. Beacham of Magnolia, Mississippi.

A most interesting and informative lecture on "The Management of Diabetes Mellitus" was presented to the group by Dr. Weilbacker.

The following members and guests were present: The guest speaker, Dr. J. O. Weilbacker of New Orleans, La.; Dr. J. J. Pittman and A. B. Harvey of Tylertown, Miss.; M. B. Small and M. L. Pittman of Kentwood, La.; H. C. Denson and W. M. Biggs of Osyka, Miss.; A. V. Beacham and G. W. Robertson of Magnolia, Miss.; F. S. Herrin and J. E.

Hewitt of Summit, Miss.; L. W. Brock, R. H. Brumfield, E. M. Givens, T. L. Moore, Jr., Abe Mickal, F. L. Butler, S. Paul Klotz, Thomas Purser, Sr., Thomas Purser, Jr., L. L. Bauer, W. F. Cotten, W. C. Hart, Gladys Ratcliff, and B. J. Hewitt of McComb, Miss.

ANNOUNCEMENTS

The staff of the Street Clinic and Mercy Hospital-Street Memorial announces the return from military service of Lucian Minor Ferris, M. D., practice devoted to internal medicine.

Dr. William T. Howard announces the opening of his offices, practice limited to orthopedic surgery, 801 Medical Arts Building, Memphis, Tennessee.

Dr. Horton G. DuBard having recently returned from military service announces the opening of offices, suite 426, Physicians and Surgeons Building, 899 Madison Avenue, Memphis, Tenn.

Dr. John Henry Lotz announces the re-opening of his office for the practice of dermatology and syphilology, 1098 Madison Avenue, Memphis, Tennessee.

Dr. Buford Word wishes to announce his return from active duty with the armed forces to resume his practice in gynecology and obstetrics at 900 South Twentieth Street, Birmingham, Alabama.

The Vicksburg Hospital, Inc., and the Vicksburg Clinic announce the association of James A. Kiely, M. D., pediatrician, and Joseph M. Moore, M. D., orthopedic surgeon.

The Vicksburg Hospital, Inc., and the Vicksburg Clinic announce the return from military service of James L. Hall, M. D., practice limited to dermatology and syphilology.

The staff of the Street Clinic and Mercy Hospital-Street Memorial announces the association of Donald Tasker Imrie, M. D., orthopedic surgeon.

John Bond Nuckolls, M. D., announces his return to the civilian practice of urology. Address: 424 East Main Street, Jackson, Tenn.

John Lyle Shaw, M. D., announces the reopening of his office for the practice of urology, and urological surgery, suite 507, Medical Arts Building, Memphis, Tennessee.

Dr. James B. McLester announces his return from military service and resumption of practice in association with Dr. James S. McLester, 930 South Twentieth Street, Birmingham, Alabama.

Carl D. Marsh, M.D., F.A.C.A., announces the opening of his office for the practice of allergy and dermatology, 616 Goodwyn Institute Building, Third and Madison, Memphis, Tennessee.

Campbell Clinic announces the return from military service of Lt. Col. Hugh Smith and Col. Thomas L. Waring, 869 Madison Avenue, Memphis 3, Tennessee.

Dr. A. V. Beacham of New Orleans, La., has recently been elected to the executive committee of the Southeastern Branch of the American Urological Association. The meeting was held in Augusta, Ga.

Dr. W. D. Beacham, also of New Orleans, was elected to membership to the Louisiana Alpha Chapter of the Alpha Omega Alpha Medical Honor Society this spring. This is the first time that the Tulane Chapter has elected a transfer.

SHARP & DOHME ANNOUNCE $1,800 RESEARCH GRANT

The Department of Animal Husbandry, Pennsylvania State College, is the recipient of an $1,800 research grant from Sharp & Dohme, Philadelphia, it was announced last month.

The grant is a renewal of previous grants and affords increased financial support to a research program under the direction of Dr. W. T. S. Thorp, Professor of Animal Pathology. Dr. Thorp is making an extensive study of various sulfonamides in the treatment of infectious and parasitic diseases in livestock and poultry.

MEDICAL EDUCATION BOARD MEETING

The State Medical Education Board, created by the 1946 legislature, met May 29 at the

Executive Mansion on call of Governor Bailey, who opened the session and turned over the meeting to Dr. D. S. Pankratz, acting dean, Medical School, University of Mississippi. Dr. Pankratz, by virtue of his office, serves as chairman of the new board, which will administer a fund of $325,000 for awarding of scholarships in medical education to worthy and qualified Mississippi students. Legislation establishing this program was authored by Hon. Walter Sillers, Bolivar County.

Meeting for purposes of organization and policy planning, members of the board discussed legislation creating the scholarship fund and took steps in setting up offices and definite procedures. Dr. Felix J. Underwood, director, Mississippi State Board of Health, was elected as vice-chairman of the board. Working office will be located at Jackson and offices maintained at the University.

Mrs. H. H. Ellis, past president, Mississippi Federation of Women's Clubs, Meridian, and Dr. J. K. Avent, president, Mississippi State Medical Association, Grenada, were active participants in laying the groundwork for the new board's program. W. H. Braden, superintendent of schools, Natchez, was detained from the meeting by illness.

Mrs. Maria Voscamp, Jackson, was named secretary of the board.

FIRST ANNUAL MEETING — BOARD OF DIRECTORS, MISSISSIPPI DIVISION, THE AMERICAN CANCER SOCIETY

On Monday evening, May 13, at 7:30 p. m. sixteen members of the Board of Directors of the Mississippi Division of the American Cancer Society attended the first annual meeting held at the Heidelberg Hotel, Jackson.

The State Campaign Chairman, Dr. Felix J. Underwood, gave a report of the 1946 Fund-Raising Campaign indicating that twenty-six of the fifty-two counties organized for the campaign had reported over $40,000 of the $66,000 goal raised. In commenting upon the campaign Doctor Underwood stated that there had never been such public response to an appeal for funds for cancer. He stated further that the willingness of organizations and individuals to coöperate had been gratifying and showed a public awareness of the needs of the people.

Acknowledgment was made of the coöperation of the State Commander, Mrs. Elizabeth Wates, and also the Regional Commander, Mrs. H. B. Ritchie of Athens, Georgia, and also the district commanders, the local campaign chairmen and chairmen of the local units.

Governor Thomas L. Bailey served as honorary state campaign chairman for the second year and showed great interest in the campaign by issuing a proclamation and otherwise bringing the need for the program to the attention of the citizens of the state, it was stated.

Campaign results other than financial pointed out by Doctor Underwood were listed as follows:

Mass education in cancer control through all means of transmission of information

Bringing to light cases not known to exist before

Evidence of an appreciation upon the part of the public of the program and the field for service and a broadening of the base of public interest as shown by the increase in the number of contributions

Fact that all citizens are beginning to consider local facilities for the diagnosis and treatment of cancer

Realization that progress made is ground definitely gained and all organizational procedures because of the complete execution will leave a base for campaigns of the future

The reaching of a definite goal has lent unity of purpose and communities are working together to solve their problems by individual and collective efforts

The enthusiastic response has shown a recognition of needs and an effort to provide cancer funds for solving the problem for at least one year

Cancer has been presented to the public as a health problem dependent upon an enlightened public for solution.

Mrs. Elizabeth N. Wates, state commander, gave a splendid report showing accomplishments. She stated that 125 cases had received treatment since November 1 of last year.

District commanders' reports made showed encouraging progress and increased awareness of the cancer situation in Mississippi. District commanders reporting were:

Dr. Emma Gay, Biloxi
Dr. Barbara Hunt, Houston.

The report of Mrs. E. E. Herrington of Amory was read.

Complete By-Laws of the Division were drawn up and adopted.

The report of the treasurer, Mr. George C. Wallis, was read in his absence by Mrs. Ethel Fulgham and it showed that funds in the treasury were being depleted rapidly in the care of cases. The funds for the 1946 campaign will be greatly needed to show a balance in hand.

Present at the meetings were: Dr. A. L. Gray, director, Division of Preventable Disease Control, State Board of Health, Dr. A. J. McIlwain, Jackson, Dr. F. L. Bratley, Jackson, Dr. W. H. Anderson, Booneville, Dr. Felix J. Underwood, Jackson, Dr. Harris Bell, Vicksburg, Dr. R. H. Fenstermacher, Vicksburg, Dr. W. H. Parsons, Vicksburg, Dr. Robert H. Moore, Vicksburg, Dr. J. K. Avent, Grenada, Dr. K. O. Stingily, Meridian, Dr. W. H. Brandon, Clarksdale, Dr. Emma Gay, Biloxi, Dr. Barbara Hunt, Houston, Mrs. J. I. Wates and Mrs. Ethel Fulgham.

HOSPITAL SERVICE IN THE UNITED STATES

The annual hospital report of the Council on Medical Education and Hospitals published in this issue of THE JOURNAL shows a continued increase of hospital service in 1945. The number of patients admitted was 16,257,402 or 220,544 more than reported in 1944. In addition there were 1,969,667 hospital births, a total unequaled in any previous year. The tremendous volume of hospital service in the United States is likewise reflected in the average census, or daily patient load, which reached a new high of 1,405,247. This average, measured over a period of one year, represents the unprecedented total of 512,915,155 treatment days. Included in the survey of 1945 are 6.511 registered hospitals, which have a combined capacity of 1,738,944 beds exclusive of 81,131 bassinets. While the number of beds represents a gain of 8,999 in the last year, the increase is small when compared with the rapid wartime expansion of 265,427 beds in 1943 and 80,691 in 1944.

The present report reflects only the early phase of peacetime readjustments in the hospital field. Changes are noted particularly in the federal hospitals, which show a reduction in number, in bed capacity and in total patients admitted. The later were reduced by 239,322 in 1945, whereas an increase of 254,664 was reported in the previous year. Longer periods of hospitalization are now evident in the federal classification as well as an increased census, or daily patient load. The percentage bed occupancy increased sharply in 1945, as did also the average length of stay in the federal general hospital group. As in the previous war years, the statistical data on federal hospitals have been compiled as a unit report. It is not possible, therefore, in the present survey to supply separate information on federal groups except so far as individual hospital data are included in the registered list.

The general hospitals supply the greatest volume of hospital service, as evidenced by their report of 15,228,270 admissions, or 93.6 per cent of all patients admitted in 1945. They likewise gave care to 1,907,772 newborn infants, 96.8 per cent of the total live births in hospitals registered by the American Medical Association. Increases in general hospital admissions occurred in all governmental and nongovernmental groups except in the federal classification and in the hospitals listed as corporations unrestricted as to province. The governmental general hospitals received 36 per cent of the total admissions, the nongovernmental general hospitals 57.6 per cent. In 1945 the average length of stay in general hospitals increased by two days, while the bed occupancy rate advanced from 61.6 to 72 per cent. These changes are largely the result of corresponding developments in the federal hospital group. In previous years the average census of the mental institutions exceeded the daily patient load reported by general hospitals. For the first time this trend has now been reserved, with a reported average of 665,105 in the general hospitals as compared with 624,349 in the mental hospital group. Considering the supply and utilization of hospital beds, it is of interest to note that the nonfederal general hospitals in relation to the estimated civilian population (U. S. Census Bureau, July 1, 1945) show a ratio of 3.5 beds per thousand, with an actual daily utilization of 2.6.

The governmental hospital group, which includes federal, state, county, municipal and city-county hospitals, has 78 per cent of the total hospital beds. They however received only 39 per cent of the admissions in 1945, whereas the nongovernmental hospitals, with

22 per cent of the beds, admitted nearly ten million patients, or 61 per cent.

Included in the present survey are reports on nursing personnel and schools of nursing education accredited by the respective states. Training is offered in 1,250 accredited schools, which report an enrolment of 130,909 student nurses as compared with 129,879 in 1944. One hundred and seventy-one schools, offering only affiliating courses, accommodated 11,238 student nurses in 1945. In the registered hospitals approximately 145,000 graduate nurses are regularly employed. The report shows an increase in all classifications of professional nursing personnel and also an expansion in the auxiliary nursing groups except in relation to practical nurses and attendants.

Hospitals are primarily concerned with the care and welfare of the sick, but many have also undertaken the additional responsibility of training interns, resident physicians, nurses and technical personnel. These educational functions do not in any way conflict with the chief purpose for which the hospital is maintained but serve to enhance the quality of medical and hospital care. The hospitals of the United States have completed the war years with a high record of achievement. Their accomplishment, in the face of many difficulties, gives full assurance that they will continue to render faithful and efficient service in the years to come.

—*Journal of American Medical Association*

A politician thinks of the next election; a statesman of the next generation.

—James Freeman Clarke

Book Review

SYNOPSIS OF PHYSIOLOGY, by Rolland J. Main, Ph. D., published by the C. V. Mosby Company, St. Louis, Mo. Illustrated, 341 pp. Price $3.50.

This is a valuable book for the library of any doctor. Dr. Main is professor of physiology in the Medical College of Virginia. The purpose of the book is to furnish the essentials in physiology as a review for the doctor. The book is divided into nine chapters. The first and a most interesting chapter is on protoplasm and the cell. Environmental adaptation of cells and hemostasis is given due consideration in a second chapter. The discussion of the circulation and respiration are most interesting and helpful to one interested in the automatic intricacies of the human body. The physiology of digestion is stimulating, in view of so many people beng affected with gastric and duodenal ulcers. Dr. Main's treatise on physiology of endocrines and reproduction and shock is very helpful as well as the review of special organs of the body as the eye, ear, kidney, and liver. Aviation physiology also constitutes an interesting discussion.

REFLECTIONS

Looking back on the short span of years I have lived, and thinking in retrospect of my associations with men, I am wondering if we do not wear ourselves out making money and spending it, putting our hearts into sordid affairs to such an extent that we have no time to see the simple beauties of nature or to appreciate the worth of abiding values.

I am wondering if we should revert to pagan simplicity we should not be more able to catch a glimpse of Proteus, rising from the sea, and in that glimpse get a more glorious vision of the eternal fitness of things, than when we visit the gilded palaces or view the glittering excesses of civilized society rampant.

I am wondering if civilization is possibly traveling with no particular destination. I simply wonder, don't you?

Why should I burn my heart out in an inane desire to be a Henry Ford, or an Andrew Mellon, or even one less celebrated, when I have not the capacity to begin to appreciate the significance of their position or responsibility. I could easily imagine in my more sane moments that men like Henry Ford might get greater enjoyment from helping men in the pursuit of the fuller life, rather than in acquiring material possessions.

(Contributed by Dr. J. A. Rayburn, Pontotoc, Miss.)

He who endeavors to control the mind by force is a tyrant, and he who submits is a slave.

Ill habits gather by unseen degrees,
As brooks make rivers, rivers run to seas.

—Dryden

Members of the Mississippi State Medical Association who have been practicing medicine for fifty or more years were entertained by the editor at a banquet held in their honor at the Robert E. Lee Hotel, May 14. Seated, left to right, they are: Dr. W. L. Little, Wesson, in practice 58 years, Dr. Dan J. Williams, Gulfport, in practice 56 years, Dr. W. H. Scudder, Myersville, practicing 59 years, Dr. James L. Crook, Jackson, Tenn., guest speaker, former president of the Southern Medical Association and in practice 52 years, and Dr. W. A. Evans, Aberdeen, practicing 61 years and elected president of the Mississippi group. Standing, left to right, Dr. John Darrington, Yazoo City, practicing 54 years, Dr. W. Jeff Anderson, Meridian, practicing 50 years, Dr. J Rice Williams, Houston, practicing 52 years, Dr. W. H. Frizell, Brookhaven, practicing 50 years, and Dr. B. J. Marshall, Whitfield, in practice 52 years.

By virtue of his eighty-five years, and fifty-nine years of continuous practice in the same town, Dr. Scudder was accorded seniority

OFFICERS 1946-1947

PRESIDENT

J. K. Avent .... *Grenada*

PRESIDENT-ELECT

Paul Gamble .... *Greenville*

VICE-PRESIDENTS

E. H. Crawford .... *Tylertown*
H. F. Garrison .... *Jackson*
E. A. Brown .... *Water Valley*

HISTORIAN

J. G. Thompson .... *Jackson*

EDITOR

W. H. Anderson .... *Booneville*

ASSOCIATE EDITORS

Stanley A. Hill .... *Corinth*
L. L. McDougal, Jr. .... *Tupelo*

SPEAKER OF THE HOUSE

J. Rice Williams .... *Houston*

TREASURER

E. Leroy Wilkins .... *Clarksdale*

SECRETARY

T. M. Dye .... *Clarksdale*

COUNCIL

First District

J. W. Lucas .... *Moorhead*
Bolivar, Coahoma, Humphreys, LeFlore, Quitman, Sunflower, Tallahatchie, Tunica, Washington

Second District

L. L. Minor .... *Route 4, Memphis, Tenn.*
Benton, DeSoto, Lafayette, Marshall, Panola, Tate, Tippah, Union, Yalobusha

Third District

R. B. Caldwell .... *Baldwyn*
Alcorn, Calhoun, Chickasaw, Clay, Itawamba, Lee, Lowndes, Monroe, Noxubee, Oktibbeha Pontotoc, Prentiss, Tishomingo

Fourth District

W. H. Curry .... *Eupora*
Attala, Carroll, Choctaw, Grenada, Holmes Montgomery, Webster

Fifth District

H. C. Ricks .... *Jackson*
Claiborne, Hinds, Issaquena, Leake, Madison, Rankin, Scott, Sharkey, Simpson, Smith, Warren, Yazoo

Sixth District

Lamar Arrington .... *Meridian*
Clark, Kemper, Lauderdale, Newton, Neshoba, Winston

Seventh District

T. E. Ross .... *Hattiesburg*
Covington, Forrest, George, Green, Jasper, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Wayne

Eighth District

W. H. Frizell .... *Brookhaven*
Adams, Amite, Copiah, Franklin, Jefferson, Lawrence, Lincoln, Pike Walthall, Wilkinson

Ninth District

D. J. Williams .... *Gulfport*
Hancock, Harrison, Jackson, Stone

COMMITTEES

PROGRAM

THE SECRETARY
CHAIRMEN OF SECTIONS

CONSTITUTION AND BY-LAWS

W. H. Frizell (*One Year*) .... *Brookhaven*
W. W. Crawford (*Two Years*) .... *Hattiesburg*
D. W. Jones (*Three Years*) .... *Jackson*

PUBLIC POLICY AND LEGISLATION

W. H. Anderson (*One Year*) .... *Booneville*
Gus Street (*Two years*) .... *Vicksburg*
Henry Boswell (*Three Years*) .... *Sanatorium*

PUBLICATION

W. H. Anderson .... *Booneville*
Stanley A. Hill .... *Corinth*
L. L. McDougal, Jr. .... *Tupelo*

BUDGET AND FINANCE

B. B. O'Mara (*One Year*) .... *Biloxi*
Edgar Giles (*Two Years*) .... *Avalon*
L. V. Rush (*Three Years*) .... *Meridian*

EXHIBITS

George Riley (*One Year*) .... *Jackson*
C. H. McCall (*Two Years*) .... *Gulfport*
B. B. O'Mara .... *Biloxi*

A. M. A. DELEGATE

F. J. Underwood (*One Year*) .... *Jackson*
J. P. Wall (*Two Years*) .... *Jackson*

FRATERNAL DELEGATES

H. Lowry Rush (Alabama) .... *Meridian*
F. M. Acree (Arkansas) .... *Greenville*
W. H. Anderson (Tennessee) .... *Booneville*
C. H. McCall (Louisiana) .... *Gulfport*

Interpreting Medical Literature

STAFF OF REVIEW

Dermatology—James G. Thompson, Jackson.

Ear, Nose and Throat—Edley Jones, Vicksburg.

Obstetrics and Gynecology—J. F. Lucas, Greenwood.

Orthopedics—Thomas H. Blake, Jackson.

Public Health—Felix J. Underwood, Jackson.

Pediatrics—Harvey F. Garrison, Jackson.

Radiology and Roentgenology—Karl O. Stingily, Meridian.

Pathology—R. M. Moore, Vicksburg, Miss.

Surgery—W. H. Parsons, Vicksburg.

Urology—Temple Ainsworth, Jackson.

DERMATOLOGY

Volume 53 Number 1

January 1946

Page No. 45 and 46

*D*ERMATOLOGICAL PROBLEMS IN TROPICAL THEATRES. Editorial, Bull. U. S. Army M. Bull. 4:299 (Sept.) 1945.

This article briefly outlines the salient features of experience accumulated during this war and does not discuss the exotic tropical dermatoses. The following dermatologic diseases have been outstanding: (1) eczematoid dermatitis with secondary pyogenic infection; (2) the atypical lichen planus syndrome characterized by a combination of eczematous plaques and hypertrophic violaceous lichenoid lesions; (3) bullous impetigo; (4) ulcerative pyogenic lesions; (5) superficial fungous infections; (6) contact dermatitis due to the sap of various trees; (7) cutaneous diphtheria; (8) malaria; (9) furunculosis, and (10) acne vulgaris, seborrheic dermatitis, psoriasis, atopic dermatitis, and all forms of localized eczema, which tend to become worse in hot humid climates.

The following general principles of dermatologic diagnosis and treatment were found to be important in the tropics:

1. Overtreatment with irritating and sensitizing drugs causes more disability than the primary diseases. In particular, tincture of iodine, Fraser's solution (salicylic acid, benzoic acid, tincture of iodine and spirits of camphor), sulfonamide ointments, strong salicylic acid preparations and ointment of benzoic and salicylic acid or any medication which causes even a questionable exacberation should be discontinued immediately.
2. The pyogenic dermatoses are important causes of prolonged disability, especially if they are neglected and become well established. Sulfonamide ointments should not be used.
3. Patients with eczematoid lesions particularly on hands, feet and groin, cannot be treated on an ambulatory basis.
4. Therapeutic agents such as sulfonamide compounds, arsenicals, quinacrine hydrochloride and quinine should be withheld or given with caution to patients with cutaneous diseases which might be caused by sensitization to drugs.
5. So far as possible, ulcerative lesions should be considered on an etiologic basis.
6. Heavy ointments and pastes, occlusive dressings and preparations containing more than 3 per cent salicylic acid are not well tolerated in the tropics.
7. The etiologic role of fungi should not be over-emphasized, because it leads to failure to consider other etiologic factors, such as pyogens, contacts, psychosomatic factors. and other endogenous drug and food allergens.

Strakosch, Denver.

OBSERVATIONS ON SCABIES AT THE ST. PANCRAS BATHING CENTER. M. G. Geffen, Brit. M. J. 2:825 (Dec. 23) 1944.

During 1943 the author treated 1,136 school children with new cases of scabies, 201 children of preschool age and 442 adults by having benzyl benzoate painted on by a trained personnel at a clinic. Seventeen per cent of the school children returned to the clinic with recurrences. Among the adults and younger children 8 per cent returned with active scabies.

Investigation of the fifty-two recurrences in the latter group revealed that twenty-two occurred in families in which some contact had not been treated; ten more patients knew that they had been in contact with scabies outside their homes while the twenty remaining could give no information revealing any source of reinfection.

Owing to a failure in the boiler system it was found impossible to give the usual preliminary bath to the school children attending for treatment. It was interesting to observe that there was no falling off in the cures during or soon after this period.

Scrubbing the skin to open burrows and lesions has been abandoned, the only apparent differences being that children with secondary sores no longer suffer as they did under this infliction. Children under twelve months of age were treated with "Marcussen's ointment." Experience has shown that recurrent scabies is a disease caused by dirt and that treatment at home frequently fails.

PEDIATRICS

PENICILLIN THERAPY IN RAT BITE FEVER

Brooksaler, Fred - Journal of Pediatrics
27: 442 (November) 1945.

It is now fairly well established that fever following rat bite may be caused by either of the two etiologic agents: 1) sodoku, the spirillar form, or 2) the streptobacillary form caused by Streptobacillus moniliformis (Haverhillia multiformis or Streptothrix muris ratti).

"Sodoku, the endemic, Japanese or Oriental form, is produced only by the bite of a rat or other animal. On the other hand, S. moniliformis septicemia is caused by a rat bite but also follows the ingestion of contaminated food. The latter disease has been called Haverhill fever.

"The clinical picture of rat bite fever, due to the Spirillum minus (sodoku), is as follows: After an incubation period of about one to three weeks there is an exacerbation of the original wound with development of local swelling, pain, and purplish-red discoloration. A chancre-like ulcer develops. Regional lymphangitis and lymphadenitis are present. There is frequently a macular or a papular cutaneous rash which may be generalized but is often restricted to the area about the wound. The fever is of a remittent or intermittent type, and there may occur afebrile periods of three to nine days followed by another cycle of pyrexia. Arthritis is usually absent. The laboratory findings are polymorphonuclear leucocytosis, a secondary anemia, a usually negative blood Wassermann but a frequently positive Kahn reaction. Arsenicals in their various forms have been the treatment of choice for sodoku. The therapeutic dose is identical with that commonly employed in antisyphilitic treatments. The response is very good with abrupt cessation of fever and symptoms.

"On the other hand, rat bite fever due to S. moniliformis is characterized by a short incubation period of about three to six days. Ordinarily the patient has chills and fever, vomiting and headache. There is an early fine maculopapular morbilliform or petechial rash. Arthritis is typically present, frequently multiple and with no definite joint predilection. The fever may be relapsing or remittent or septic in type. The serologic tests for syphilis as a rule are negative. The white cell count is usually elevated. For definite diagnosis of the disease, the S. moniliformis has to be isolated from blood or joint fluid . . . So far as the treatment is concerned, there is no response to arsenicals, and the use of sulfonamides has been disappointing.

"The writer had the opportunity of observing a case of rat bite fever due to S. moniliformis in an 18-month-old girl. This child was treated with penicillin, and the therapeutic response to this treatment was prompt and permanent.

"Case Report. - S. N., a white girl aged 18 months, was admitted to Bradford Memorial Hospital on September 28, 1944, with a history of having been bitten by a rat on one toe six days previously. Within three days she developed high fever (103 to 104° F.) with a chill and a rash on arms and face similar to measles. The site of the rat bite became smaller and purplish discoloration spread up the foot. The patient was put on sulfonamides for two days without effect. Anti-pyretics were used, and the temperature returned to normal for one day. Then the mother noticed pain in the child's shoulder when she was lifted. Because of the return of fever, the persistence of the rash, and the development of increased somnolence, the patient was sent to Bradford Hospital.

"At the time of admission the child was acutely ill and her temperature was 104.8° F. by rectum. There was a macular pink rash distributed generally over her body covering the extremities including the palms of her hands and the soles of the feet, less prominent on the chest, abdomen, and back. On the right second toe there was a ragged, secondarily infected laceration with moderate edema . . . The liver was palpable 1 cm. and the spleen 3 cm. below the costal margin.

"The white blood cell count was 14,650 per cu. mm. with 73 per cent polymorphonuclears and 26 per cent lymphocytes. The Kline test, the urinalysis, and the agglutination tests for typhoid, paratyphoid A and B, Bacillus abortus and Bacillus proteus X19 were all negative. The darkfield examination failed to reveal spirochetes. The first blood culture was also negative.

"The patient was treated symptomatically for the fever which was of a septic type until on the fourth hospital day in another blood culture gram-negative pleomorphic rods were found which, because of the morphologic and growth characteristics, were identified as Haverhillia multiformis.

"Immediately after the diagnosis was established, penicillin treatment was started with 5,000 units intramuscularly every three hours. On the next day the temperature dropped to normal and remained normal until discharge. The rash disappeared, and the wound on the toe healed within the following four days.

All blood cultures after the start of penicillin treatment were negative. The child suffered no relapse and was discharged in good condition on the eleventh hospital day after a total of 225,000 units of penicillin had been given. Follow-up observations have shown that she has had no recurrence.

"Penicillin is recommended as the treatment of choice in rat bite and Haverhill fevers."

COMMENT

It has never been our experience to have treated any child with this condition with penicillin, but we feel that the experience of the author is sufficient to justify the use of this most excellent therapeutic remedy for this condition in the manner indicated by the author.

State Board of Health

Felix J. Underwood, M.D.

CHILD GUIDANCE IN MISSISSIPPI

By Estelle A. Magiera, M. D.

In January, 1945, the periodical, *Understanding the Child**, published an account of the first year's work of the Child Guidance Centers in Mississippi. Begun September 1, 1943, and modeled after the famed Judge Baker Guidance Center, the Centers were established as a part of the public health program to help in the prevention of emotional and social illness. A good start was made and there has been steady progress in spite of innumerable difficulties. A current report prepared for the State Board of Health meeting, June 17-19, portrays some of the activities of this Division during its second year.

By having the principal clinic in Jackson and five mobile clinics, it has been possible to extend the services of the Child Guidance Division of the state as a whole. Referrals come from the schools, social agencies, parents, physicians and county health department personnel, with the majority being referred by the schools. Physicians have been the second source of referrals. Satisfied parents who have availed themselves of the service have referred their friends. Each child coming to the clinic must have a complete physical and neurological examination by a physician so that it can be determined in advance that the problem is of psychogenic origin and amenable to correction through the Child Guidance facilities. On the initial interview a child is usually given a psychological examination and referral data is taken by the psychiatric social worker. After this has been completed the psychiatrist sees the child, usually on weekly appointments, until the problem of which it was referred is no longer a significant issue and the child has better understanding of his own behavior.

The work done by the staff in the mobile clinics is often more than child guidance in its strictest sense. True, the child is presenting a problem but the source of the difficulties

---

(* - *Understanding the child*, vol. 14: 12-18, Jan., 1945) may stem from factors in his environment. In dealing with the situation the members of the clinic become an educational force. To the parents, teachers and public health workers concerned they point out why the child is presenting a problem and how he can best be helped. Perhaps the child's difficulties are caused by a number of factors. He may not have the intelligence to compete with other children in his class and make average grades. Sometimes the precipitating factor for the child's maladjustment is a physical handicap. In this case the child is referred to the agency in the state whose facilities can be of assistance: the Crippled Children's Service, the Child Welfare Division, the Mississippi School for the Blind, and others. It may be that poverty in the home or illness is responsible for the child's lack of proper food or physical care. Such a case would be brought to the attention of the Family Service Association and carried jointly by the Child Guidance Clinic in order that the child might have the benefit of the services for its physical welfare afforded by such agency.

There has been excellent coöperation on the part of school superintendents, principals, teachers, and others in the localities where the clinics are held. A good example of this coöperation is reflected in the handling of the following case:

John, a 16-year-old boy, was considered by the school as very eccentric. He would rush to the principal's office saying that he was going to invent a microscope that would detect cancer germs. He had no friends except his teacher, to whom he constantly wrote love poems. School work was difficult for him and he failed several grades. The principal finally referred him to the clinic, saying that he believed Johnny must be crazy. The psychological examination revealed that John's intelligence was slightly below average and that it had not been possible for him to do better school work. During the first interview with John, the psychiatrist was able to establish rapport with him. He verbalized freely and discussed many problems with her. He told her that he had invented a machine whereby he could see and talk to people who were dead. If he became very still and quiet, he heard voices talking to him. When these voices commanded him to do something, he felt compelled to obey. The psychiatrist asked him what he would do if he were commanded to kill someone. John replied, "I guess I would just have to do it."

The first step in the treatment of this boy was to explain to the parents and to the school that John was a very sick boy emotionally and that hospitalization might be necessary. The psychiatrist explained that his withdrawing from reality, his fantasy, and his hallucinations were a result of a very deprived personal and social background. The boy had not been able to compete with his classmates physically, intellectually, or in any other way. The world of reality was a difficult and unhappy place for him so he created a happy place—one in which he was the hero.

This world of fantasy brought him pleasure and happiness. In order to help this boy it was necessary to have the coöperation of both his parents and the school authorities. Everyone seemed eager to help. Arrangements were made with the school for him to have a limited curriculum. The gymnasium teacher made it possible for him to be sergeant in the military drills. The homeroom teacher, who was very understanding, enlisted the help of his classmates and took every occasion to compliment the boy on the things he did well and thus enabled him to develop some confidence in himself. His classmates accepted him and invited him to participate in the games during the play period. The father bought machinery and material and a small amount of stock so that he and John could work together and have a partnership arrangement in the proceeds. With the coöperation of all these people, there was a spectacular change noted by the psychiatrist when she saw John in the clinic a month later. He has developed an interest in farming and it is believed that he will be able to make a very satisfactory adjustment.

The staff of the Child Guidance Clinic is called upon for various kinds of assistance. Recently a school principal sought an interview in order to have consultation on the advisability of failing or passing a boy in school. Another wrote for assistance in selecting children for a speech clinic. Advice has been sought on problems of adoption and placement of children. The United States Probation Officer has referred many children coming to his attention, feeling that psychiatric and psychological examinations provide much basic data in dealing properly with his cases. Service is always gladly given provided it can be done with the limited personnel and facilities now available. In a period when there is much unrest and insecurity in the world, a program devoted to solving emotional and behavior problems is greatly needed. The work of the Child Guidance Clinic is a step in the right direction.

* * * * * * * * *

HEALTH EDUCATION

The Division of Health Education, in cooperation with the School Health Division, serves in a state-wide health education program. People are reached through schools, parent-teacher organizations, home demonstration clubs, church groups, fraternal and civic organizations and study groups.

Tools through which these services are given are news releases, magazine articles, a film library, the radio, and collaboration with other divisions in the production of pamphlets, exhibits, and other materials designed to promote knowledge regarding health and disease prevention. Speakers are recruited for special health education programs. Assistance is given in the preparation of talks on health subjects, and in specially organized health education institutes.

Examples of health education participation for special groups has been in campaign programs with voluntary health agencies; namely: cancer, tuberculosis, and infantile paralysis; institutes for training leaders in the program on Education for Responsive Parenthood; training teachers for summer work on maternal and child health programs; and in planning for personnel and areas of emphasis with college sponsored workshops in health education.

Consultation service in guidance and materials is rendered by four county health educators, who are directly responsible to their respective health officers. It has not only been the function of the state services in health education to help initiate and supervise these local programs, but it has also been necessary to recruit personnel for special fellowships offered in this field. This recruiting requires careful investigation, interviewing and extensive correspondence with applicants and colleges where applicants are applying for training.

The health education programs being conducted by specially trained supervisors in Lee, Jones, Washington and Coahoma counties are proving very fundamental in integrating public health information into the everyday living of the local population. Subjects given emphasis during recent months include tuberculosis, venereal diseases, nutrition, cancer, malaria, education for responsible parenthood, safe and sanitary preparation of food, maternal and child health, child guidance, and general communicable disease control. Groundwork is being laid for community organization of voluntary health agencies, official health agencies, and welfare services.

Special consultation services are rendered teachers and faculty groups on health education problems. The four local educators are on loan to college workshops for six weeks each summer on special health education studies.

Ten persons are now in schools of public health being specially trained for health education work in Mississippi. Each summer teachers in a dozen or more counties spend three months on maternal and child health education, after two weeks of intensive training under the direction of staff members of the State Board of Health.

Health education is the solution to helping Mississippians bridge the gap in what is known and what is applied in this era of advanced science. Proper information will enable them to protect themselves against quackery and expensive and useless patent medicines. It will show them the way of preventing disease and death and how to attain a more abundant life through healthful living.

PREVALENCE OF COMMUNICABLE DISEASES IN MISSISSIPPI

	March 1946	March 1945	March Five-Yr. Average
Acute Poliomyelitis	3	4	2.6
Bacillary Dysentery	593	413	458.2
Dengue	0	0	0.0
Diphtheria	34	32	27.6
Influenza	7030	5347	6708.6
Measles	5838	2294	4024.8
Meningococcus meningitis	20	19	45.0
Other Forms Meningitis	10	3	7.0
Pellagra	179	158	195.4
Pneumonia	2240	1924	2129.6
Pulmonary Tuberculosis	99	131	131.4
Scarlet Fever	117	141	91.4
Smallpox	5	8	4.2
Tularemia	14	22	11.2
Typhoid Fever	7	3	4.6
Typhus Fever	6	12	6.8
Undulant Fever	8	6	5.6
Whooping Cough	596	817	961.4

Woman's Auxiliary

OFFICERS

President-Elect	Mrs. S. B. McIlwain	Pascagoula
First Vice-President	Mrs. Laurence J. Clark	Vicksburg
Second Vice-President	Mrs. A. L. Gray	Jackson
Third Vice-President	Mrs. W. H. Anderson	Booneville
Fourth Vice-President	Mrs. W. H. Cleveland	Tupelo
Recording Secretary	Mrs. R. P. Greaves	Jackson
Treasurer	Mrs. J. B. Simmons	Cleveland
Parliamentarian	Mrs. W. C. Pool	Cary
Historian	Mrs. H. F. Garrison, Sr.	Jackson

COMMITTEE CHAIRMEN

Research and Romance of Medicine	Mrs. John B. Howell	Canton
Public Relations	Mrs. J. Rice Williams	Houston
Doctor's Day	Mrs. V. B. Philpot	Holly Springs
Legislation	Mrs. J. K. Avent	Grenada
Memorials	Mrs. W. W. Crawford	Hattiesburg
Health Education	Mrs. Hugh Johnston	Vicksburg
Preventorium	Mrs. Henry Boswell	Sanatorium

COUNCILORS

First District	Mrs. H. L. Cockerham	Gunnison
Second District	Mrs. V. B. Harrison	Oxford
Third District	Mrs. R. H. Rayburn	Pontotoc
Fourth District	Mrs. Edgar Giles	Avalon
Fifth District	Mrs. G. W. Riley	Jackson
Sixth District	Mrs. Lowery Rush	Meridian
Seventh District	Mrs. N. W. Green	Hattiesburg
Eighth District	Mrs. A. B. Harvey	Tylertown
Ninth District	Mrs. R. E. Eley	Moss Point

MRS. STANLEY HILL, PRESIDENT, STATE MEDICAL AUXILIARY

The Woman's Auxiliary to the State Medical Association met in Jackson on May 14-15, with the Central Medical Auxiliary as hostess.

The executive board meeting was held May 14 at the Robert E. Lee Hotel.

At the past-presidents' breakfast on the morning of May 15 corsages were sent each past-president by Mrs. John B. Howell of Canton, a past-president who was unable to attend.

Following the breakfast, the general business session of the Auxiliary was opened by Mrs. Laurence J. Clark of Vicksburg, state president. Mrs. V. B. Philpot of Holly Springs gave the invocation; Mrs. G. E. Riley, local president, brought the address of welcome and Mrs. S. B. McIlwain of Pascagoula responded; Mrs. Gus Street of Vicksburg conducted the memorial service.

Dr. B. Lampton Crawford of Tylertown and Dr. A. K. Avent of Grenada, president and president-elect, respectively, of the Mississippi State Medical Association, brought messages to the Auxiliary.

The following officers were elected for the year **1946-1947**:

President-Elect, Mrs. S. B. McIlwain, Pascagoula.

First Vice-President, Mrs. Laurence J. Clark, Vicksburg.

Second Vice-President, Mrs. A. L. Gray, Jackson.

Third Vice-President, Mrs. W. H. Anderson, Booneville.

Fourth Vice-President, Mrs. W. H. Cleveland, Tupelo.

Recording Secretary, Mrs. R. P. Greaves, Jackson.

Treasurer, Mrs. J. B. Simmons, Cleveland.

Parliamentarian, Mrs. W. C. Pool, Cary.

History and Archives, Mrs. H. F. Garrison, Sr., Jackson.

CHAIRMEN NAMED:

Research and Romance, Mrs. John B. Howell, Canton.

Public Relations, Mrs. J. Rice Williams, Houston.

Doctors' Day, Mrs. V. B. Philpot, Holly Springs.

Legislation, Mrs. J. K. Avent, Grenada.

Memorials, Mrs. W. W. Crawford, Hattiesburg.

Health Education, Mrs. Hugh Johnston, Vicksburg.

Preventorium, Mrs. Henry Boswell, Sanatorium.

Councilors:

First District, Mrs. H. L. Cockerham, Gunnison.

Second District, Mrs. V. B. Harrison, Oxford.

Third District, Mrs. R. H. Rayburn, Pontotoc.

Fourth District, Mrs. Edgar Giles, Avalon.

Fifth District, Mrs. G. W. Riley, Jackson.

Sixth District, Mrs. Lowery Rush, Meridian.

Seventh District, Mrs. N. W. Green, Hattiesburg.

Eighth District, Mrs. A. B. Harvey, Tylertown.

Ninth District, Mrs. R. E. Eley, Moss Point.

At one o'clock all doctors' wives were entertained with a luncheon at the Edwards Hotel. The tables were decorated with beautiful arrangements of spring flowers. During the luncheon Mrs. Lane Busick, Brandon, rendered a vocal selection and Mrs. P. E. Smith, Hattiesburg, a violin number, both being accompanied by Mrs. George Owen at the piano.

The guest speaker for the occasion was Miss Cassie B. Smith, assistant state director of health education.

Following the luncheon there was a post-convention meeting with the new officers, Mrs. Stanley Hill, the new president, presiding.

WINONA DISTRICT AUXILIARY

The Auxiliary to the Winona District Medical Society held its spring meeting in the home of Mrs. J. K. Avent in Grenada. Both the president, Mrs. S. L. Bailey, and the vice-president, Mrs. H. K. Curry, were absent due to illness, and Mrs. Avent presided over the business session. Reports were made by the historian, Mrs. W. G. Brock, and the *Hygeia* chairman, Mrs. E. C. O'Cain. Mrs. F. B. Coats of Hardy and Mrs. P. B. Brumby of Lexington were welcomed as new members.

Mrs. Avent gave an excellent paper on cancer, as a contribution to the Cancer Control Campaign. She illustrated her talk with charts and gave out leaflets. As the wife of the president of the State Medical Association, she also reported three talks on socialized medicine given before lay organizations, with an explanation of the Wagner-Murray Dingell bill.

At six o'clock the ladies joined the doctors at the community building for a delicious dinner. The lovely garden flowers which decorated the long refreshment tables had been artistically arranged by Mrs. Avent.

Resuming their meeting after the social hour, the ladies voted to send $25.00 to the state Cancer Control Fund and heard an excellent review of Dr. Thurman B. Rice's article in *Hygeia*, "Adding Life to Your Years," by Mrs. Edgar Giles.

COAST COUNTIES AUXILIARY

The Gulfport chapter of the Coast Counties Medical Society entertained their husbands, observing Doctors' Day, with a buffet supper given at the Great Southern Country Club. Seasonal flowers of larkspur, magnolias and daisies beautifully decorated the lounge. A supper of baked ham and roast turkey with trimmings of salads, sandwiches and relishes was served to sixty-four guests.

Following the supper the guests assembled in the lounge while Dr. C. A. McWilliams showed motion pictures of the doctors' families that he has been taking over a period of years, and Dr. A. C. Hewes added to these a most colorful and interesting reel of bird life that he had taken. Music concluded the evening's entertainment with singing and a fine spirit of fellowship, which it is hoped may continue throughout the years.

LIFE SOMETHING MORE

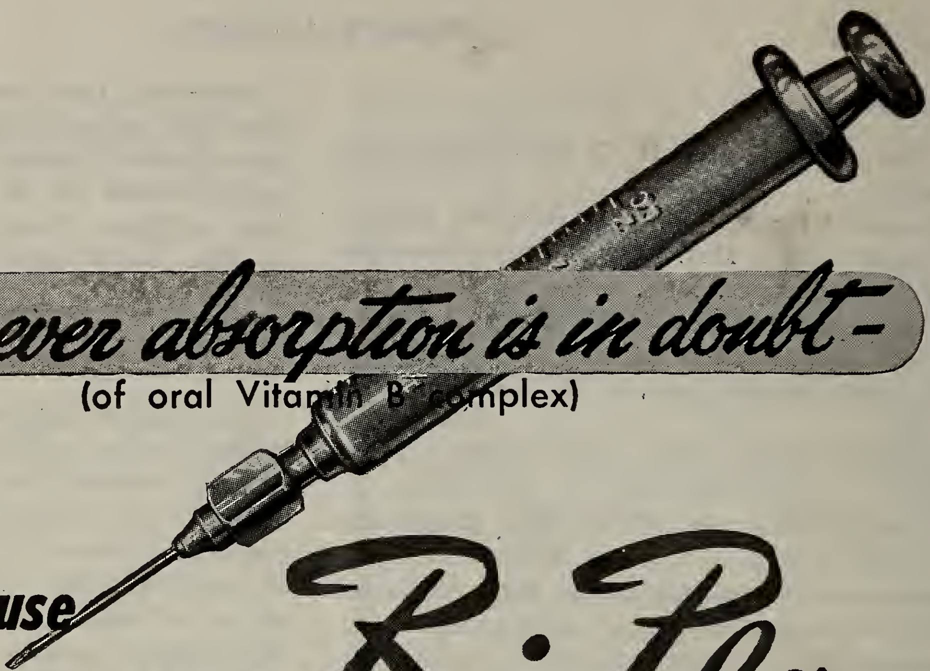
The making of money, the accumulation of material power, is not all there is to living. Life is something more than those two things and the man who misses this truth misses the greatest joy and satisfaction that can come into his life—that is, from service to others.

Edward Bok

Most of the permanent value of a tuberculosis survey program depends on a thorough follow-up of definite and suspicious cases in regular diagnostic clinics where the history, physical, laboratory and x-ray findings permit accurate evaluation of the status of the patient's disease. —Rep't Cattaraugus Co. (N. Y. Health Department.

To be seventy years young is sometimes far more cheerful and hopeful than to be forty years old.

—Oliver Windell Holmes



Whenever absorption is in doubt—

(of oral Vitamin B complex)

use

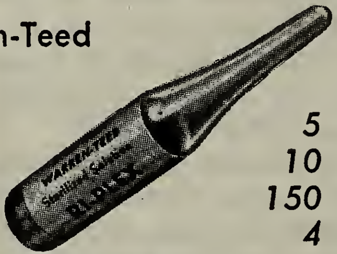
WARREN-TEED *Ri-Plex*

For Parenteral Administration

The problem of absorption of vitamin B complex is eliminated by the use of parenterally administered WARREN-TEED RI-PLEX. Even though gastro-intestinal malfunction or vomiting of pregnancy is present, the vitamin B complex dosage is fully effective — highly beneficial in relieving either condition.

Secondary anemia patients may respond better to parenteral vitamin B administration. Whenever there is doubt about absorption and utilization of oral dosage — consider parenteral injection of vitamin B complex — WARREN-TEED RI-PLEX.

Each 2cc. ampul of Warren-Teed
Ri-Plex contains:



Pyridoxine Hydrochloride	*5 mg.*
Thiamine Hydrochloride	*10 mg.*
Nicotinamide	*150 mg.*
Riboflavin	*4 mg.*

in Isotonic Solution of Sodium Chloride

WARREN-TEED

Medicaments of Exacting Quality Since 1920

W BY ANY TEST TD Pharmaceuticals T

THE WARREN-TEED PRODUCTS COMPANY, COLUMBUS 8, OHIO

Warren-Teed Ethical Pharmaceuticals: capsules, elixirs, ointments, sterilized solutions, syrups, tablets. Write for literature.

The

Mississippi Doctor

Official Organ of the

Mississippi State Medical Association

and the

Mid-South Postgraduate Medical Assembly

W. H. ANDERSON, M.D., Editor-in-Chief
MILDRED P. ANDERSON, Assistant Editor

INDEX

JUNE 1945 – MAY 1946

VOLUME 23

PUBLISHED AT BOONEVILLE, MISSISSIPPI

Subject Index

ABDOMEN
—fulminating abdominal catastrophes (G. H. Martin & A. Street) 333
ALLERGY
—differential diagnosis of nasal allergy (D. W. Hamrick) 587
AMERICAN MEDICAL ASSOCIATION
—constructive program for medical care 406
ANGINA, Ludwig's
—modern treatment (C. M. Murry, Jr., & G. E. Fisher) 589
APPENDICITIS
—practical points in differential diagnosis and treatment (S. H. Davis) 473
BIOGRAPHY, Medical
—Marion Sims and other 19th century pioneers (S. Harris) 387
—Pt. 2 415
BLOOD GROUPS
—Rh factor as obstetrical hazard (C. W. Patterson) 372
—Rh factor in medicine (V. B. Harrison) 641
BLOOD PLASMA
—available for civilians 591
BLOOD PRESSURE, High
—endocrine aspects (J. H. Hutton) 493
BLOOD PRESSURE, Low
—postural or orthostatic hypotension (W. K. Purks) 584
BREAD
—Mississippi's enrichment program 356
BRONCHI
—bronchiogenic carcinoma (A. Ochsner) 577
BURNS
—modern treatment (J. A. Valone) 610
CANCER
—(W. H. Parsons) 537
—battle against cancer (M. Fishbein) 560
—cancer versus physicians and the public (A. L. Gray) 616
—control 461
—control, a doctor's program (G. Zimmerer) .500
—editorial 457
—education (4th training school) 489
1st ann. mtg., Bd. of directors, Mississippi division, American Cancer Soc. 652
—general practitioner in the cancer program (G. D. Dicks) 614
—in female reproductive system (D. D. Baugh) 640
—prevention 329
CHICKENPOX
—Herpes zoster and chickenpox (T. James) ab. 570
CLAVICLE
—Acromioclavicular injuries (J. D. Dyer) 363
CONVULSIONS
—in infancy and childbirth (G. C. O'Neal) ab. .516
CAVERNOUS SINUS
—thrombosis with recovery (C. M. Murry, Jr.) 639
DERMATITIS, Venenata
—"diaper rash" due to perm aseptic (W. L. Dobes) ab. 570
DERMATOLOGY
—problems in tropical theatres, ab. 657
DDT
—use of 462
DIABETES
—surgery and diabetes (H. B. Sutherland) ..399
DYSTROPHY, MUSCULAR
—familial progressive muscular dystrophy (W. A. Evans & C. H. Love) 369
ECONOMICS, MEDICAL
—Blue cross insurance and med. economics (E. D. Carey) 441
—ed. comment 455
EDITORIALS 349, 376, 403, 455, 480, 505, ...538, 560, 590, 617, 648
EDUCATION, MEDICAL
—4 yr. med. school for Mississippi 349, 403, 506, 538, 541, 562
—approved by Legislature 590
—future of in Miss. (J. K. Avent) 359
—should we have (E. R. Nobles) 475
—state committee favors 450
—to have or not to have 376
—Why not in Mississippi? (N. R. Shubert) .480
—Medical education for the laity (E. Hull) ...525
postgraduate fellowships, Commonwealth fd. ..540
postgrad. course, pediatrics and obs. 357
—postgrad. courses, Tulane univ. 483, 543, 547
—State medical education board 651
ENDOMETRIOSIS
—a case report (W. L. Stallworth) 559
EYELIDS
—cancer (F. J. Krugh and L. Hollander) ab. .353
FOOT, TRENCH
—(R. C. Berson & R. J. Angelucci) ab. 380
GALLBLADDER
—diverticula (H. E. Robertson et. al) ab. 623
—recent advances in the medical and surgical management of gallbladder disease (O. B. Crocker) 448
GUMS
—epidemoid carcinoma of the lower gingiva (A. J. Stacy, Jr.) 496
HEALTH EDUCATION
—bridging the gap (E. Hassell) 487
—in Mississippi 661
HOOKWORM INFECTION
—survey of incidence in George County, Miss., (R. A. Brannon, Jr., C. E. Miler & Z. E. Oswalt) 409
HOSPITALS
—editorial 457
—distribution in Miss. ed. 465
—Mississippi needs more hospital maternity beds 357
—north Mississippi hospital dedicated 564
—service in the U. S. ed. 653
HOSPITALS, Group hospitalization insurance
—blue cross insurance and medical economics (E. D. Carey) 441
IMPETIGO
prevention (C. C. Fisher) ab. 407
INFANTS, PREMATURE
—care of (R. A. Johnson) ab. 485
INTERPRETING MEDICAL LITERATURE 353, 380, 407, 435, 459, 485, 516, 544, 570, 595, 623, 657
INTESTINES, OBSTRUCTION
—in infants and children (R. M. Moore) 554
JOURNALS, Medical
—*The Mississippi Doctor* (D. E. Guyton) 365
LIBRARIES, MEDICAL
—see under Miss. State Board of Health
MATERNITY, Welfare
—Mississippi emergency maternal and infant care program completes 2d. year 357
MEDICAL CARE
—rural health (V. B. Harrison) 366
—contructive program (A. M. A.) 406
MEDICINE

—progress in the twentieth century (B. L. Crawford) 631
—what socialized medicine means to Mississippi (J. P. Wall) 633
MEDICINE, History
—Marion Sims and other nineteenth century pioneers: the dawn of scientific medicine and surgery (S. Harris) Pt. 1 387
pt. 2 415
MENTAL HYGIENE
—child guidance in Miss. (E. A. Magiera) 659
MISSISSPPI STATE HEALTH ASSOCIATION 490, 547
MISSISSIPPI PUBLIC HEALTH ASSOCIATION ..
—bridging the gap (E. Hassell) 487
—cancer control 461
—child guidance in Miss. (E. A. Magiera) 659
—DDT, use of 462
—education for responsible parenthood 520
—expectant mothers, meeting extra hemoglobin needs of (V. Howard) 597
—health and victory 460
health education 661
—hookworm infection in George Co. Miss. (Brannon, Miller & Oswalt) 409
—Medical library, new books 522
—Mineral oil vs. cooking fats 438
—Maternal and infant care program (EMIC) 357
—Mississippi's enrichment program 356
—mouth health activities 382
—neurosyphilis, state fever therapy unit 355
—protein in the diet (M. Stansel) 546
—school nursing service 461
—the stage is set (conquest of prev. dis.) 625
—tuberculosis, conquest of 571
—typhus fever control 572
—venereal disease, advances in treatment 598
—venereal disease contact reporting 520
—vital statistics 520, 627
—wartime public health services 436
MISSISSIPPI STATE HOSPITAL
—resolution by Delta Med. Society 483
MISSISSIPPI STATE MEDICAL ASSOCIATION
—1946 meeting 404, 566, 590, 617, 618, 648
—emergency meeting, 1945 351
—proposed amendment to by-laws 432
—four-year med. school favored 450
—Half-century club (port.) 655
—officers, 1945-46 567
—officers, 1945-46 656
WOMAN'S AUXILIARY 413, 463, 490, 523, 548, 574, 599
(see also Societies, Local) 628, 662
MYCOSIS
—treatment and prevention of dermatophytosis (ab.) 380
NEUROSYPHILIS
—state fever therapy unit (A. L. Gray) 355
NURSING
—school nursing service 461
OBSTETRICS
Rh factor as an obstetrical hazard (C. W. Patterson) 372
OPHTHALMIA NEONATORUM
—local penicillin therapy (ab.) 353
PELLAGRA
—in children (T. Gillman & J. Gillman) (ab.) 544
PENICILLIN
—use in some infected surgical cases (V. B. Philpot) 340
PHYSICIANS
—distribution (ed.) 404, 452, 465
—office space for returning veterans 456
—returned from military service 541, 565, 593, 627, 650
—doctors, democrats and demagogues, (J. A. Rayburn) 359
—Mississippi deaths during 1945 593
POLIOMYELITIS
—(L. P. Gebhardt & W. M. McCay) 623
PREGNANCY, Diet in
—meeting the extra hemoglobin needs of expectant mothers (V. Howard) 597
PREMATURITY
—causes (A. Lyon and N. A. Anderson) ab. ..595
PROTEIN
—in the diet (Mary Stansel) 546
PUBLIC HEALTH
(see also under Miss. State Board of Health)
—rural health (V. B. Harrison) 366
RAT BITE FEVER
—penicillin therapy (F. Brooksaler) ab. 658
ROSEOLA INFANTUM (J. L. Rubel) 589
SALICYL COMPOUNDS, Toxicity
—poisoning (A. F. Hartmann) ab. 435
SCABIES
—observation at St. Pancras bathing center (M. G. Geffen) ab. 657
SEX, Instruction
—education for responsible parenthood 520
SOCIETIES, Local
—Delta med. society (resolution) 483
—Newton county med. society 568
—North Miss. six county med. society 591
—Northeast Miss. 13 counties 430, 431, 457, 508, 562
—Pike county med. society 650
—South Miss. med. society 575
—WOMAN'S AUXILIARIES:
—Central medical auxiliary 385, 464, 574, 599, 629
—Coast counties med. soc. aux. 628, 663
—Clarksdale & 6 counties aux. 491
—Issaquena-Sharkey-Warren counties aux. ..464
—North Miss. Med. society aux. 464, 491
—Tri-County auxiliary 439, 600
—Winona district aux. 439, 663
SOUTHEASTERN SURGICAL CONGRESS 539, 562
SOUTHERN MEDICAL ASSOCIATION
—annual meeting, Cincinnati 455, 481
—exec. com. mtg. 378
—officers 479
—president 458
STERILITY
—female sterility studies (W. A. Beacham) ..424
STOMACH
—carcinoma (R. M. Roth) 551
SURGERY
—human fibrin as hemostatic agent (O. T. Bailey, et. al) 518
—penicillin and its use in some infected surgical cases (V. B. Philpot) 340
TEETH, HYGIENE
—mouth health activities in Mississippi 382
THERAPY
—several wartime advancements (J. M. Moore) 578
THIOUREA
—thiouracil (A. Street) 375
TUBERCULOSIS
—conquest of 571
—importance of detecting in children (J. A. Myers, et. al) ab. 459
—responsibility of private physician in control (Hilleboe, H. E.) ab. 545
TULAREMIA
—some unusual aspects of tularemia as found in Mississippi (L. R. Murphree) 534
TYPHUS FEVER (O. P. Stone) 347
—control 572
UNIVERSITY OF MISSISSIPPI ed. 349
URETHRA
—female urethritis (J. A. Murfee) 446
UTERUS

—treatment of fibroids (S. A. Hill) 443
—uterine bleeding—organic and functional (G. F. Douglas) 603
—uterosalpingography (P. E. Smith) 467
VAGINA
—case of congenital anomaly of the female urethra and vagina (C. C. Hightower) 398
VARICOSE VEINS
—(J. D. Dyer) 557
—management of and complications (J. W. O'Dell) 528
VENEREAL DISEASES
—contact reporting 520
—penicillin for (M. Fishbein) 504
VITAL STATISTICS
—Mississippi vital statistics 1944 521
WAR
—health and the victory 460
—"Not democracy" ed. 481
—separation of the medical profession from the armed services (J. P. Wall) 423
—nurses 509
—wartime public health services 436
WHOOPING COUGH
—alum-precipitated diphtheria toxoid for inoculation ab. 381
—efficacy of vaccine (J. A. Garvin) ab. 407
WOMAN'S AUXILIARY
(see under Miss. State Med. Assn. and Societies, Local)

Author Index

Alexander, J. A. (death of) 405
Arrington, M. E. (death of) 434
Avent, J. K. 359
Ballenger, E. G. (death of) 352
Baugh, D. D. 640
Beacham, W. A. 424
Bernard, C. 395
Boyd, C. E. (death of) 352, 379
Brannon, R. A., Jr. 409
Bryan, G. S. 431, 507, 539, 563. 649
Carey, E. D. 441, 561
Carter, J. C. (death of) 569
Caruthers, S. S. (death of) 484
Clark, Anne 413
Coleman, W. F. (death of) 379
Coleman, W. J. (death of) 484
Crawford, B. L. 631
Crawford, B. L. (port.) 659
Crocker, O. B. 448
Davis, C. M. (death of) 379
Davis, J. E. (death of) 543
Davis, S. H. 473
Dedwylder, R. D. 428
Dicks, G. D. 614
Douglas, G. F. 603
Dumas, A. W., Sr. (death of) 484
Dunlap, S. E. (death of) 405
Dyer, J. D. 363, 557
Eckford, J. W. (death of) 543
Evans, W. A. 369. 431
Everett, C. A. (death of) 569
Fishbein, M. 504, 560
Fisher, G. E. 580
Foster, J. M. (death of) 434
Frost, M. O. 646
Gamble, Paul 650
Gann, D., Sr. (death of) 434
Garrison, Mrs. H. F., Sr. (in memoriam) 491
Gay, Emma 433
Goodman, H. S. (death of) 484
Gordon, Y. E. (death of) 543
Gray, A. L. 355, 616, 625
Grice, E. A. (death of) 379
Guyton, D. E. 365
Halsted, W. S. 420
Hamrick, D. W. 587
Harris, Seale 387, 415
Harrison, V. B. 366, 641
Hassell, Eleanor 487
Hester, C. F. (death of) 509
Hightower, C. C. 398
Hill, Mrs. Stanley 662
Hill, S. A. 443
Hilleboe, H. E. 545
Holmes, O. W. 393
Howard, S. H. (death of) 379
Howard, Virginia 597
Hull, E. 525
Hutton, J. H. 493
Jones, D. W. 404
Jones, L. C. (death of) 543
Kempster, J. D. 346
Keyes, C. T. (death of) 379
Koch, R. 419
Ladner, R. G. (death of) 569
Leathers, W. S. (death of) 561
Lister, Joseph 416
Long, C. W. 390
Love, C. H. 369
McArthur, A. P. (death of) 569
McDowell, E. 390
Magiera, E. A. 659
Martin, E. G. (death of) 569
Martin, G. H. 333
Mastin, E. V. 352
Mastin, E. V. (port.) 458
Matas, R. 377, 646
Maxwell, W. B. (death of) 458
Meriweather, T. W. (death of) 622
Miller, C. E. 409
Minor, L. L. 509
Moore, J. M. 578
Moore, R. M. 554
Morton, W. T. G. 391
Murfee, J. A. 446
Murphree, L. R. 534
Murry, C. M., Jr. 580, 639
Nix, J. T. (death of) 378, 379
Nobles, E. R. 475
Ochsner, A. 577
O'Dell, J. W. 528
O'Neal, G. C. 516
Oswalt, Z. E. 409
Parsons, W. H. 537
Pasteur, Louis 396
Patterson, C. W. 372
Patterson, C. W. (death of) 379
Philpot, V. B. 340
Primrose, J. W. (death of) 405
Prine, J. G. (death of) 622
Purks, W. K. 584
Rayburn, J. A. 359
Roth, R. M. 551
Rubel, J. L. 589
Rush, L. V. 404
Scruggs, S. G. (death of) 379
Scudder, W. H. 350
Semmelweis, L. 394
Shoulders, H. H. 508
Shubert, N. Y. 481

Sims, J. M. 387, 415
Smith, P. E. 467
Speck, C. M. (death of) 484
Stacy, A. J., Jr. 496
Stallworth, W. L. 559
Stansel, Mary 546
Stone, O. P. 347
Stone, J. B. (death of) 621
Street, A. 333, 375
Sutherland, H. B. 399
Switzer, R. A. (death of) 405
Toomer, W. A. (death of) 506, 509
Valone, J. A. 610
Virchow, Rudolf 396
Vowell, B. A. (death of) 484
Wall, J. P. 428, 633
Walher, H. W. F. (death of) 569
Wates, Mrs. Elizabeth N. 433
Wells, H. 392
Williams, Mrs. D. J. (death of) 549, 574
Williams, J. R. 405, 506
Williams, J. R. (Port.) 619
Williamson, W. A. (death of) 484
Wolferman, S. J. (death of) 377
Word, B. 433
Wright, W. R. 382
Young, F. F. (death of) 458
Zimmerer, E. G. 500